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# Water Resources Data for Colorado
# Water Year 1980. Volume 2. Colorado River Basin above Dolores River

(U.S.) Geological Survey
Lakewood CO

Jul 81

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National Technical Information Service
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# Water Resources Data for Colorado

## Volume 2. Colorado River Basin above Dolores River

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-80-2

WATER YEAR 1980

Prepared in cooperation with the State of Colorado
and with other agencies

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA 22161

# CALENDAR FOR WATER YEAR 1980

## 1979

### OCTOBER

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## 1980

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### SEPTEMBER

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| 28 | 29 | 30 | | | | |

U.S. DEPARTMENT OF THE INTERIOR
March 3 1849

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# Water Resources Data for Colorado

## Volume 2. Colorado River Basin above Dolores River

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-80-2

## WATER YEAR 1980

Prepared in cooperation with the State of Colorado
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

Doyle G. Frederick, Acting Director

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Lakewood, CO 80225

1981

# PREFACE

This report was prepared by the U.S. Geological Survey in cooperation with the State of Colorado and other agencies by personnel of the Colorado District of the Water Resources Division under the supervision of J. F. Blakey, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region.

This report is one of a series issued State by State under the direction of Philip Cohen, Chief Hydrologist, and the Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Colorado are in three volumes as follows:

Volume 1. Missouri River, Arkansas River, and Rio Grande basins in Colorado,
Volume 2. Colorado River basin in Colorado, above the Dolores River, and
Volume 3. Dolores River, Green River, and San Juan River basins in Colorado.

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Water-resources data for Colorado for the 1980 water year consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs, and water levels and water quality of wells and springs. This report (Volumes 1, 2, and 3) contains discharge records for about 460 gaging stations, stage and contents of 22 lakes and reservoirs, 4 partial-record low-flow stations, 30 crest-stage partial-record stations, and 50 miscellaneous sites; water quality for 163 gaging stations and 300 miscellaneous sites; and water levels for 55 observation wells. A few pertinent stations in bordering States also are included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of J. F. Blakey, district chief. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado.

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*[Letter after station name designates type and frequency of published data. Daily tables: (D) discharge, (C) specific conductance, (S) sediment, (T) temperature, (e) elevation or contents, (O) dissolved oxygen, (P) pH.*

*Partial tables: (c) chemical, (b) biological, (m) microbiological, (s) sediment, (t) temperature]*

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# WATER RESOURCES DATA FOR COLORADO, 1980

## VOLUME 1: MISSOURI RIVER, ARKANSAS RIVER, AND RIO GRANDE BASINS
## VOLUME 2: COLORADO RIVER BASIN ABOVE THE DOLORES RIVER
## VOLUME 3: DOLORES, GREEN, AND SAN JUAN BASINS

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## INTRODUCTION

Water-resources data for the 1980 water year for Colorado consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells and springs. This report (Volumes 1, 2, and 3) contains discharge records for about 460 streamflow-gaging stations, stage and contents of 22 lakes and reservoirs, 4 partial-record low-flow stations, 30 crest-stage partial-record stations, and 50 miscellaneous sites; water quality for 163 streamflow-gaging stations and 300 miscellaneous sites; and water levels for 55 observation wells. Locations of lake- and streamflow-gaging stations and water-quality stations are shown in figure 1, locations of crest-stage partial-record stations are shown in figure 2, and locations of observation wells are shown in figure 3. A few pertinent stations in bordering States also are included in this report. The records were collected and computed by the Colorado District. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U.S. Geological Survey Water-Supply Papers entitled, "Surface-water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply paper entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1955 in an annual series of water-supply papers entitled "Water Levels and Artesian Pressures in Wells in the United States," and from 1955 to the present time, in a 5-year series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 Eads Street, Arlington, VA 22202.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State-boundary basis. Beginning with the 1964 water year, water-quality records for surface and ground water have been similarly released in separate annual reports. These reports provided for rapid release of preliminary data shortly after the end of the water year. The final data were then released in the series of water-supply papers mentioned above. Beginning with the 1975 water year, water data will be released on a State-boundary basis in final form and will not be republished in the water-supply paper series. The 1975 and subsequent water year reports will be in a series which will carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report CO-80-2." These reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. For more information on available publications, see the section entitled, "PUBLICATIONS" on subsequent pages.

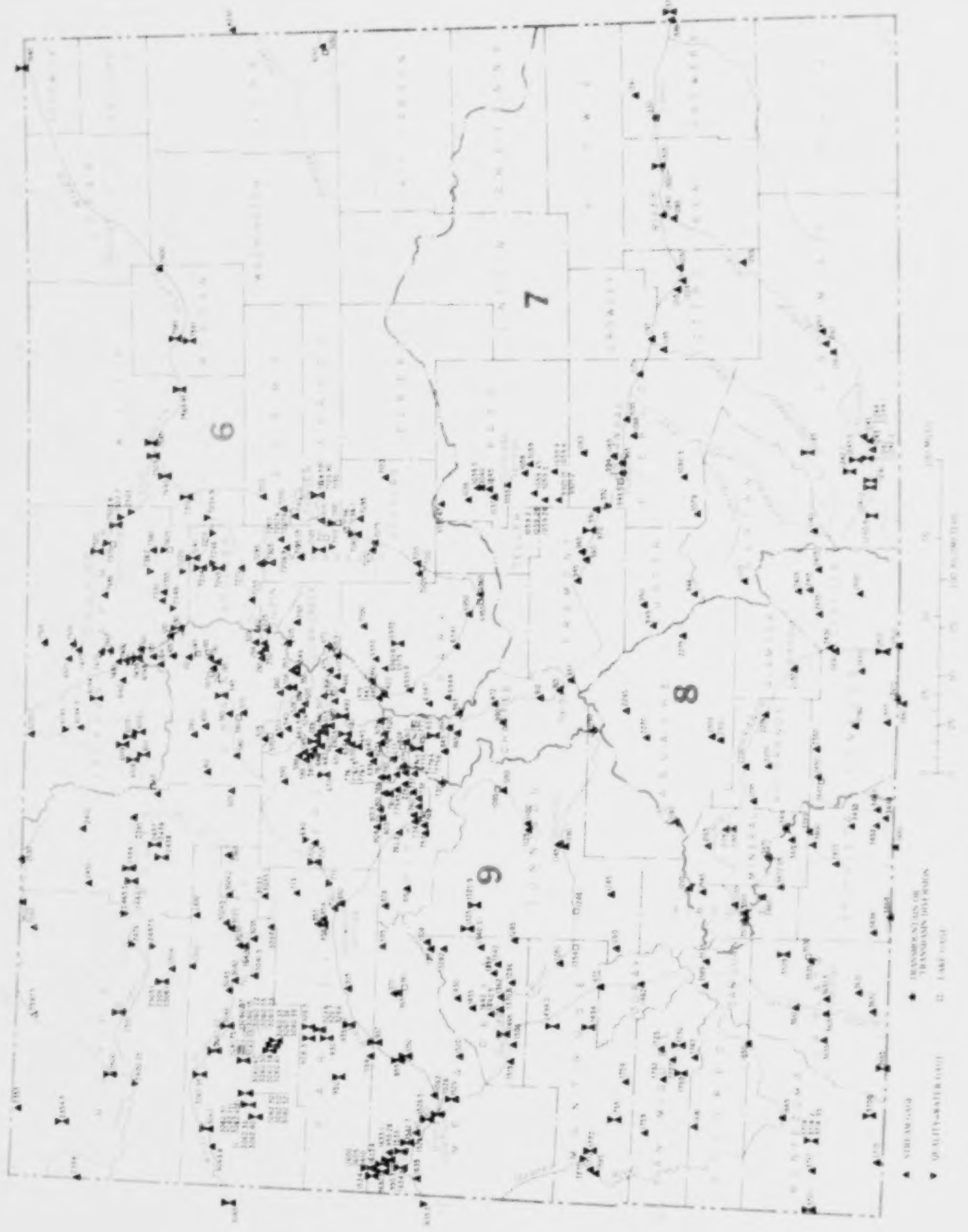
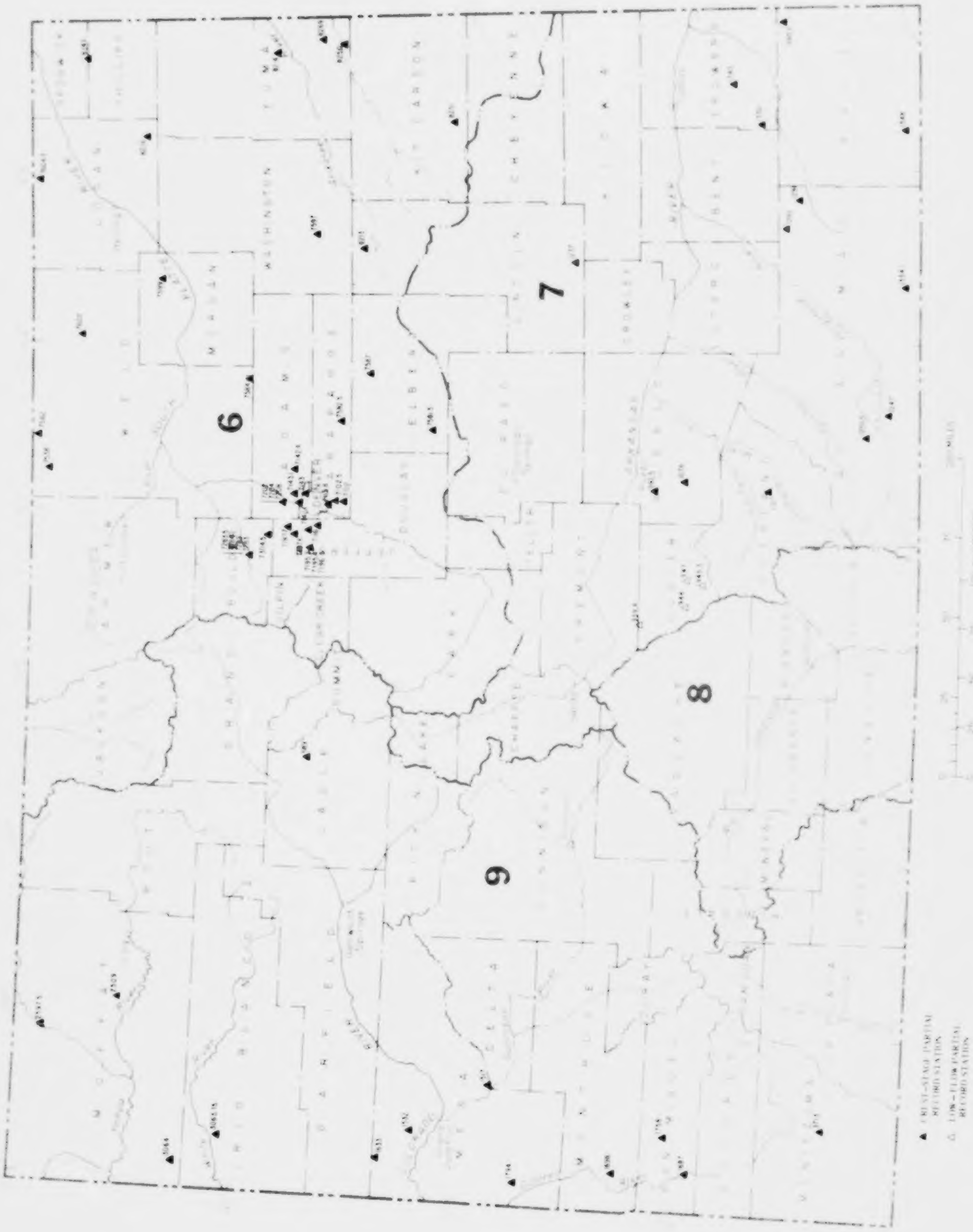


Figure 1.--Map showing locations of lake- and stream-gaging stations and water-quality stations in Colorado.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7
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▲ CREST-STAGE PARTIAL RECORD STATION
△ LOW-FLOW PARTIAL RECORD STATION

Figure 2.--Map showing locations of crest-stage partial-record stations in Colorado.

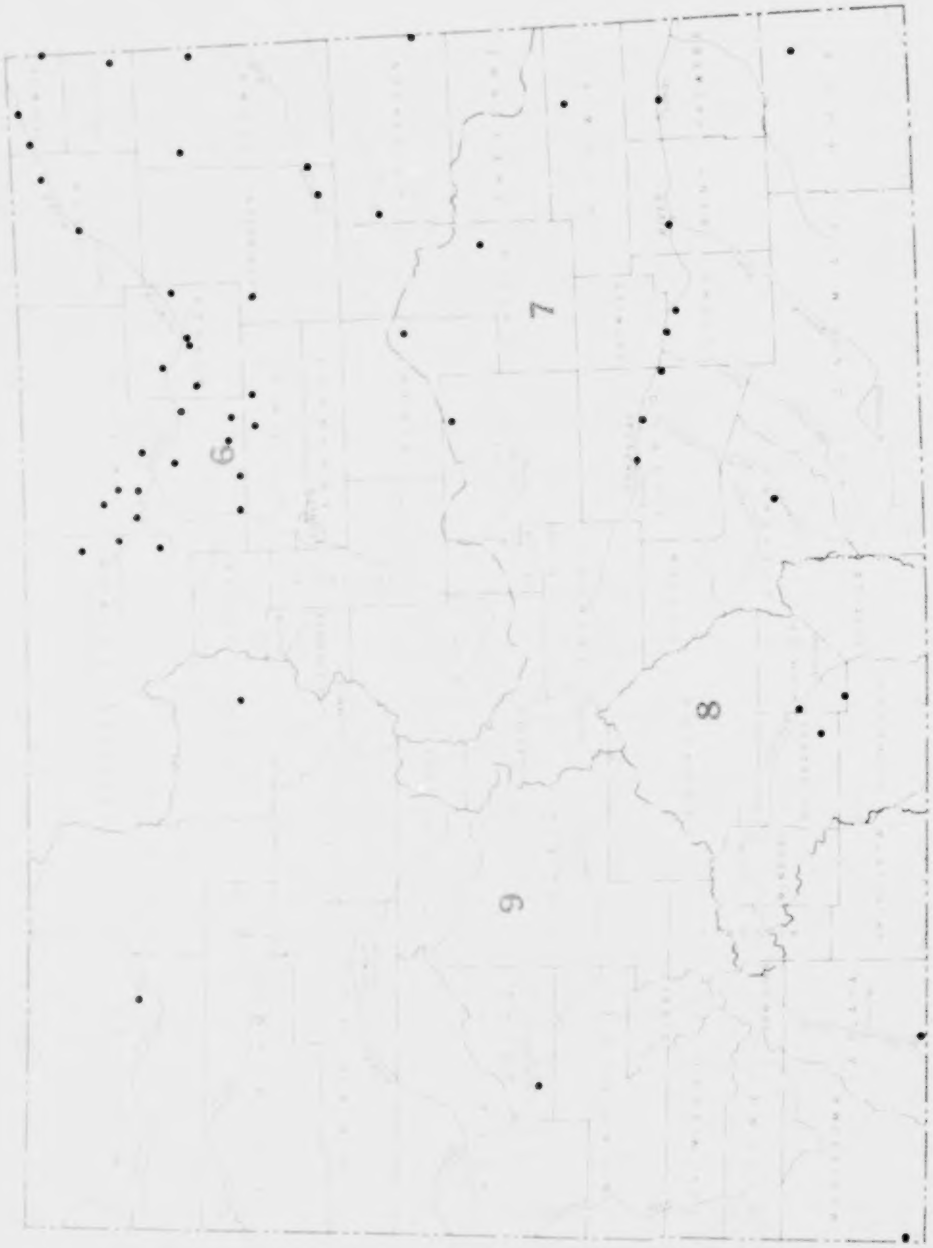


Figure 3.--Map showing locations of observation wells in Colorado.

## COOPERATION

The U.S. Geological Survey and organizations of the State of Colorado have had cooperative agreements for the systematic collection of surface-water records since 1895, and for water-quality records since 1941. Organizations that assisted in collecting data for this report through cooperative agreement with the Survey are:

Colorado Division of Water Resources, J. A. Danielson, State Engineer.
Colorado Water Conservation Board, J. W. McDonald, Director.
Colorado Department of Highways, Jack Kinstlinger, Executive Director.
Arkansas River Compact Administration, Frank G. Cooley, Chairman and Federal Representative.
Colorado River Water Conservation District, Roland C. Fischer, Secretary-Engineer.
Metropolitan Denver Sewage Disposal District No. 1, William E. Korbitz, Manager.
Northern Colorado Water Conservation District, E. F. Phipps, Secretary-Manager.
Purgatoire River Water Conservancy District, Clyde Dawn, President.
Southwestern Water Conservation District, Robert H. Tyner, Manager.
Southeastern Colorado Water Conservancy District, C. L. Thomson, General Manager.
St. Vrain and Left Hand Water Conservancy District, James A. Cinea, Executive Director.
City and County of Denver, Board of Water Commissioners, Charles F. Brannan, President.
Eagle County Commissioners, Dale F. Grant, Chairman.
Pitkin County Board of County Commissioners, George Ochs, County Manager.
City of Aspen, Phillip Mahoney, City Manager.
City of Aurora, C. A. Wemlinger, Director of Utilities.
Colorado City Water and Sanitation District, W. T. Hambric, District Administrator.
City of Colorado Springs, Department of Public Utilities, James D. Phillips, Director.
City of Fort Collins, Roger E. Krempel, Director of Utilities.
City of Glenwood Springs, John D. West, Manager.

Financial assistance was also provided by the U.S. Army, Corps of Engineers, U.S. Army; Bureau of Indian Affairs, Bureau of Land Management, Bureau of Mines, Water and Power Resources Service, and the National Park Service, U.S. Department of the Interior; and the U.S. Environmental Protection Agency. Organizations that supplied data are acknowledged in station descriptions.

Some records have been collected and computed by contractors in accordance with U.S. Geological Survey specifications and under Geological Survey quality control.

## HYDROLOGIC CONDITIONS

Over most of the State the streamflow was slightly above normal for the entire year. The monthly mean discharges of the Yampa River at Steamboat Springs and Bear Creek at Morrison varied between 110 and 193 percent of normal for the year.

The snowpack varied from 125 percent of normal in the Yampa River and White River basins to 180 percent of normal in the San Juan and Dolores River basins. Daily temperatures were only slightly above average during the year.

Ground-water levels continued to decline in the northern High Plains, but remained constant in the alluvial river-channel aquifers.

## DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Bacteria are microscopic unicellular organisms, typically spherical, rod like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2C° on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which the bottom of a streambed, lake, pond, reservoir, or estuary is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter (mg/L), necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area of volume of habitat.

Ash mass is the mass of amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter ($g/m^3$), and those for periphyton and benthic organisms in grams per square meter ($g/m^2$).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters. It represents a runoff of approximately 0.0372 inch from 1 square mile, or 0.3468 millimeter from 1 square kilometer.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic foot per second (cfs, $ft^3/s$) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second, or 448.8 gallons per minute, or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 µm membrane filter. This may include some very small (colloidal) suspended particles as well as the amount of substance present in true chemical solution. It is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved oxygen (DO) is the dissolved-oxygen content of water in equilibrium with air and is a function of atmospheric pressure and temperature and dissolved-solids concentration of the water. The capacity of water for dissolved-oxygen decreases as dissolved solids or temperature increase or as atmospheric pressure decreases. Dissolved-solids concentration has the least effect on dissolved-oxygen concentration. Photosynthesis and respiration may cause diel variations in dissolved-oxygen concentration in water from some streams.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is the physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

| Ion | Multiply by | Ion | Multiply by |
|---|---|---|---|
| Aluminum ($Al^{+3}$)* | 0.11119 | Iodide ($I^{-1}$) | 0.00788 |
| Ammonia as N | .07139 | Iron ($Fe^{+3}$)* | .05372 |
| Barium ($Ba^{+2}$) | .01456 | Lead ($Pb^{+2}$)* | .00965 |
| Bicarbonate ($HCO_3^{-1}$) | .01639 | Lithium ($Li^{+1}$)* | .14411 |
| Bromide ($Br^{-1}$) | .01251 | Magnesium ($Mg^{+2}$) | .08226 |
| Calcium ($Ca^{+2}$) | .04990 | Manganese ($Mn^{+2}$)* | .03640 |
| Carbonate ($CO_3^{-2}$) | .03333 | Nickel ($Ni^{+2}$)* | .03406 |
| Chloride ($Cl^{-1}$) | .02821 | Nitrate as N | .07139 |
| Chromium ($Cr^{+6}$)* | .11539 | Nitrite as N | .07139 |
| Cobalt ($Co^{+2}$)* | .03394 | Phosphate,ortho as P | .09686 |
| Copper ($Cu^{+2}$)* | .03148 | Potassium ($K^{+1}$) | .02557 |
| Cyanide ($CN^{-1}$) | .03844 | Sodium ($Na^{+1}$) | .04350 |
| Fluoride ($F^{-1}$) | .05264 | Strontium ($Sr^{+2}$)* | .02283 |
| Hydrogen ($H^{+1}$) | .99209 | Sulfate ($SO_4^{-2}$) | .02082 |
| Hydroxide ($OH^{-1}$) | .05880 | Zinc ($ZN^{+2}$)* | .03060 |

*Constituents reported in micrograms per liter; multiply by factor and divide results by 1,000.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Partial-record station is a particular site where limited streamflow or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*

[All values calculated to three significant figures]

| Range of concentration in 1000 mg/L | Divide by | Range of concentration in 1000 mg/L | Divide by | Range of concentration in 1000 mg/L | Divide by | Range of concentration in 1000 mg/L | Divide by |
|---|---|---|---|---|---|---|---|
| 0 - 8 | 1.00 | 201-217 | 1.13 | 411-424 | 1.26 | 619-634 | 1.39 |
| 8.05- 24 | 1.01 | 218-232 | 1.14 | 427-440 | 1.27 | 636-650 | 1.40 |
| 24.2 - 40 | 1.02 | 234-248 | 1.15 | 443-457 | 1.28 | 652-666 | 1.41 |
| 40.5 - 56 | 1.03 | 250-264 | 1.16 | 460-473 | 1.29 | 668-682 | 1.42 |
| 56.5 - 72 | 1.04 | 266-280 | 1.17 | 476-489 | 1.30 | 684-698 | 1.43 |
| 72.5 - 88 | 1.05 | 282-297 | 1.18 | 492-506 | 1.31 | 700-715 | 1.44 |
| 88.5 -104 | 1.06 | 299-313 | 1.19 | 508-522 | 1.32 | 717-730 | 1.45 |
| 105 -120 | 1.07 | 315-329 | 1.20 | 524-538 | 1.33 | 732-747 | 1.46 |
| 121 -136 | 1.08 | 331-345 | 1.21 | 540-554 | 1.34 | 749-762 | 1.47 |
| 137 -152 | 1.09 | 347-361 | 1.22 | 556-570 | 1.35 | 765-780 | 1.48 |
| 153 -169 | 1.10 | 363-378 | 1.23 | 572-585 | 1.36 | 782-796 | 1.49 |
| 170 -185 | 1.11 | 380-393 | 1.24 | 587-602 | 1.37 | 798-810 | 1.50 |
| 186 -200 | 1.12 | 395-409 | 1.25 | 604-617 | 1.38 | | |

*Based on water density of 1.000 g/mL and a specific gravity of sediment of 2.65.

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

| Classification | Size (mm) | Method of analysis |
|---|---|---|
| Clay............ | 0.00024 - 0.004 | Sedimentation |
| Silt............ | .004 - .062 | Sedimentation |
| Sand............ | .062 - 2.0 | Sedimentation or sieve |
| Gravel.......... | 2.0 - 64.0 | Sieve |

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Periphyton is the assemblage of microorganisms attached to, and growing upon, solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticide network is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per mL of sample.

Picocurie (PC, pCi) is one trillionth ($1 \times 10^{-12}$) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7 X 10 radioactive disintegrations per second. A picocurie yields 2.22 disintegrations per minute (dpm).

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Radiochemical network is a network of regularly sampled water-quality stations where samples are collected monthly or twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotopic forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose and Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in µg/L (micrograms per liter), radium as radium-226 in PC/L (pCi/L, picocuries per liter), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per liter (µg/L). Gross alpha and beta radioactivity associated with the fine-grained (silt and clay-sized) sediments in the samples are also determined.

Recoverable from bottom material the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft (0.09 m) above the bed) expressed as milligrams of dry sediments per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge in cfs times concentration in mg/L times 0.0027.

Suspended-sediment load is that quantity of suspended sediment passing a section in a specified period.

Total sediment discharge or total sediment load is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks and is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the number and specific chemical types of ions in solution and can be used for approximating the dissolved-solids content in the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Suspended, recoverable the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

*Total* the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

> *Total in bottom material* the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."
>
> *Total, recoverable* the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

*Water year* in the U.S. Geological Survey is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1979, is called the "1980 water year."

*Weighted average* is used in this report to indicate the discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

*WRD* is an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to State annual basic-data reports published prior to 1975.

WDR is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to State annual basic-data reports published after 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

## DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station and each partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station.

Gaps are left in the sequential allocation of numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 07083000, which appears just to the left of the station name, includes the 2-digit part number "07" plus the 6-digit downstream order number "083000." In this report the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are for Part 6 (Missouri River basin), Part 7 (Lower Mississippi River basin), and Part 8 (Western Gulf of Mexico basins). Records for Part 9 (Colorado River Basin) are in Volumes 2 and 3. All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

## SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

Irrigation-network stations are water-quality stations located at or near certain streamflow gaging stations west of the main stem of the Mississippi River. Data collected at these stations are used to evaluate the chemical quality of surface waters used for irrigation and the changes resulting from the drainage of irrigated lands. Prior to water year 1966, the data for these stations were published in the annual Water-Supply Paper series, "Quality of Surface Water for Irrigation, Western States."

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are: (1) To depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis, and (2) to detect and assess long-term changes in streamflow and stream quality.

## EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

### Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 5-, 15-, 30- or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the U.S. Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current water year is shown on the inside of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are affected by the revisions, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use, the datum of the present gage above mean sea level, referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records, to conditions which affect the natural flow of the gaging station, availability of water-quality records, and reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance.

The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents), and the minimum gage height, if it is significant, are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second ($ft^3/s$) during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month.

Discharge for the month also may be expressed in acre-feet (line headed "AC-FT"). In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations and at miscellaneous sites follow the information for continuous record sites. Data for partial-record discharge stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

## Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" means within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second ($ft^3/s$) for discharges of less than 1 $ft^3/s$; to tenths between 1.0 and 10 $ft^3/s$; to whole numbers between 10 and 1,000 $ft^3/s$; and to 3 significant figures above 1,000 $ft^3/s$. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. However, because all the effects cannot be measured or evaluated, satisfactory adjustments generally cannot be made. For some stations, available figures of diversions or change in contents of reservoirs are included as supplemental data. Even at those stations where adjustments can be made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

### Other Data Available

Information of a more detailed nature than that published for most of the gaging stations, such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

### Records of Discharge Collected by Agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected at many sites in Colorado during the water year by the following agencies: City of Colorado Springs; Colorado Division of Water Resources; Forest Service, U.S. Department of Agriculture; City and County of Denver, Board of Water Commissioners; National Weather Service, Department of Commerce; and Water and Power Resources Service, U.S. Department of the Interior.

## EXPLANATION OF WATER-QUALITY RECORDS

### Collection and Examination of Data

Water samples for analyses usually are collected at or near streamflow-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data, the period of daily record for parameters that are measured on a daily basis (such as, specific conductance, pH, dissolved oxygen, water temperature, sediment discharge), extremes for the period of daily record, extremes for current year, and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling, or other pertinent data are given in the table containing the chemical analyses of the ground water.

## Water Analysis

Most methods for collecting and analyzing water samples are described in "U.S. Geological Survey Techniques of Water-Resources Investigations," which are listed on page 35.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling, as much as possible, consistent wth available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field determination of carbonate and bicarbonate in the laboratory.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 grams per milliliter (g/mL), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/mL, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperature reported in degrees Celsius may be converted to degrees Fahrenheit by using table 3.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

## Water Temperatures

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for surface-water stations. For stations where water temperatures are taken manually the water temperatures are taken at about the same time each day. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges. At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Table 3.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

| °C | °F | °C | °F | °C | °F | °C | °F | °C | °F |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 32 | 10.0 | 50 | 20.0 | 68 | 30.0 | 86 | 40.0 | 104 |
| .5 | 33 | 10.5 | 51 | 20.5 | 69 | 30.5 | 87 | 40.5 | 105 |
| 1.0 | 34 | 11.0 | 52 | 21.0 | 70 | 31.0 | 88 | 41.0 | 106 |
| 1.5 | 35 | 11.5 | 53 | 21.5 | 71 | 31.5 | 89 | 41.5 | 107 |
| 2.0 | 36 | 12.0 | 54 | 22.0 | 72 | 32.0 | 90 | 42.0 | 108 |
| 2.5 | 36 | 12.5 | 54 | 22.5 | 72 | 32.5 | 90 | 42.5 | 108 |
| 3.0 | 37 | 13.0 | 55 | 23.0 | 73 | 33.0 | 91 | 43.0 | 109 |
| 3.5 | 38 | 13.5 | 56 | 23.5 | 74 | 33.5 | 92 | 43.5 | 110 |
| 4.0 | 39 | 14.0 | 57 | 24.0 | 75 | 34.0 | 93 | 44.0 | 111 |
| 4.5 | 40 | 14.5 | 58 | 24.5 | 76 | 34.5 | 94 | 44.5 | 112 |
| 5.0 | 41 | 15.0 | 59 | 25.0 | 77 | 35.0 | 95 | 45.0 | 113 |
| 5.5 | 42 | 15.5 | 60 | 25.5 | 78 | 35.5 | 96 | 45.5 | 114 |
| 6.0 | 43 | 16.0 | 61 | 26.0 | 79 | 36.0 | 97 | 46.0 | 115 |
| 6.5 | 44 | 16.5 | 62 | 26.5 | 80 | 36.5 | 98 | 46.5 | 116 |
| 7.0 | 45 | 17.0 | 63 | 27.0 | 81 | 37.0 | 99 | 47.0 | 117 |
| 7.5 | 45 | 17.5 | 63 | 27.5 | 81 | 37.5 | 99 | 47.5 | 117 |
| 8.0 | 46 | 18.0 | 64 | 28.0 | 82 | 38.0 | 100 | 48.0 | 118 |
| 8.5 | 47 | 18.5 | 65 | 28.5 | 83 | 38.5 | 101 | 48.5 | 119 |
| 9.0 | 48 | 19.0 | 66 | 29.0 | 84 | 39.0 | 102 | 49.0 | 120 |
| 9.5 | 49 | 19.5 | 67 | 29.5 | 85 | 39.5 | 103 | 49.5 | 121 |

*°C=5/9(°F-32°) or °F=9/5(°C)+32°.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. See "Definition of Terms," and table 5 for converting English units to SI units.

The biological information includes qualitative and quantitative analyses of plankton, periphyton, Chlorophyll a and b, biomass and bottom organisms. Microbiological information includes quantitative identification of selected bacteriological indicator organisms.

## Solutes

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). Analysis of pesticides and organic substances in water are described by Goerlitz and Lamar (1967), Lamar, Goerlitz, and Law (1965), and Goerlitz and Brown (1972). The collection and analysis of aquatic, biological, and microbiological samples are described by Slack and others (1973).

## Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge. A blank in the daily mean concentration column of the suspended-sediment discharge table indicates the value in the sediment discharge column was estimated. A zero value in the sediment-discharge column when there are nonzero values in the mean discharge and mean concentration columns indicates the load is less than 0.005 ton per day.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the streams.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

## WATER-SUPPLY PAPERS

The annual series of Water-Supply Papers that give information on quality of surface waters in Colorado are shown in the following table:

Table 4.--Water-Supply Paper numbers and parts, water years 1941-71

| Year | Part 6 | Part 7 | Part 8 | Part 9 | Irrigation (1951-65)[a] |
|---|---|---|---|---|---|
| 1941 | 942 | 942 | 942 | 942 | ---- |
| 1942 | 950 | 950 | 950 | 950 | ---- |
| 1943 | 970 | 970 | 970 | 970 | ---- |
| 1944 | 1022 | 1022 | 1022 | 1022 | ---- |
| 1945 | 1030 | 1030 | 1030 | 1030 | ---- |
| 1946 | 1050 | 1050 | 1050 | 1050 | ---- |
| 1947 | 1102 | 1102 | 1102 | 1102 | ---- |
| 1948 | 1132 | 1133 | 1133 | 1133 | ---- |
| 1949 | 1162 | 1163 | 1163 | 1163 | ---- |
| 1950 | 1187 | 1188 | 1188 | 1189 | ---- |
| 1951 | 1198 | 1199 | 1199 | 1200 | 1264 |
| 1952 | 1251 | 1252 | 1252 | 1253 | 1362 |
| 1953 | 1291 | 1292 | 1292 | 1293 | 1380 |
| 1954 | 1351 | 1352 | 1352 | 1353 | 1430 |
| 1955 | 1401 | 1402 | 1402 | 1403 | 1465 |
| 1956 | 1451 | 1452 | 1452 | 1453 | 1485 |
| 1957 | 1521 | 1522 | 1522 | 1523 | 1524 |
| 1958 | 1572 | 1573 | 1573 | 1574 | 1575 |
| 1959 | 1643 | 1644 | 1644 | 1645 | 1699 |
| 1960 | 1743 | 1744 | 1744 | 1745 | 1746 |
| 1961 | 1883 | 1884 | 1884 | 1885 | 1886 |
| 1962 | 1943 | 1944 | 1944 | 1945 | 1946 |
| 1963 | 1949 | 1950 | 1950 | 1951 | 1952 |
| 1964 | 1956 | 1957 | 1957 | 1958 | 1960 |
| 1965 | 1963 | 1964 | 1964 | 1965 | 1967 |
| 1966 | 1993 | 1994 | 1994 | 1995 | ---- |
| 1967 | 2013 | 2014 | 2014 | 2015 | ---- |
| 1968 | 2095 | 2096 | 2097 | 2098 | ---- |
| 1969 | 2145 | 2146 | 2147 | 2148 | ---- |
| 1970 | 2155 | 2156 | 2157 | 2158 | ---- |
| 1971 | 2165 | [b]2166 | [b]2167 | [b]2168 | ---- |

[a] Annual series, "Quality of Surface Waters for Irrigation, Western States."

[b] In preparation.

Information about reports and other data on quality of water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

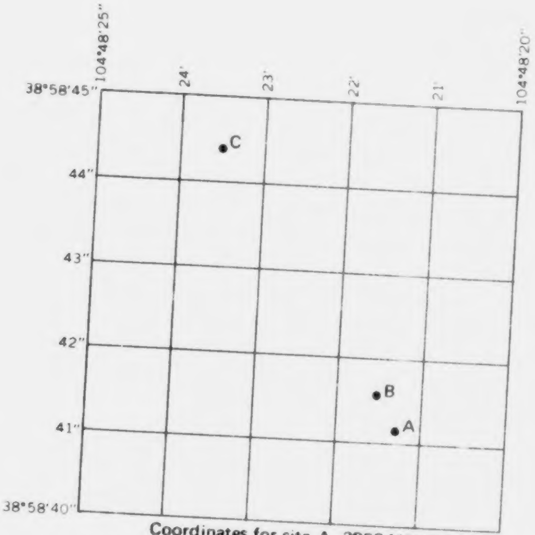
# EXPLANATION OF GROUND-WATER-LEVEL RECORDS

## Collection of Data

Only ground-water level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a record of water-level changes in important aquifers.

The locations of wells are referenced by two systems. One system is based on latitude and longitude, and the second is based on the U.S. Bureau of Land Management system of land subdivision. The latitude and longitude grid system facilitates machine processing of data and plotting of data points.

The latitude and longitude grid system is used to provide the geographic location of each well. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude; N designates north; the next seven digits denote degrees, minutes, and seconds of longitude; and the last digit is a sequential number for wells within a 1-second grid, as shown below in figure 4.



| | | |
|---|---|---|
| Coordinates for site | A | 385841N10448211 |
| | B | 385841N10448212 |
| | C | 385844N10448230 |

Figure 4.--System for numbering wells and miscellaneous sites (latitude and longitude).

The local well number locates a well within a 10-acre (4.0-ha) tract using the U.S. Bureau of Land Management system of land subdivision. The components of the local well number proceed from the largest to the smallest land subdivisions. This is in contrast to the legal description, which proceeds from the smallest to the largest land subdivision. The largest subdivision is the survey. Colorado is governed by three surveys: The Sixth Principal Meridian Survey (S), the New Mexico Survey (N), and the Ute Survey (U). Costilla County was not included in any of the above official surveys. This report follows the convention of the Costilla County Assessor in which the northern part of the county is governed by the Sixth Principal Meridian Survey and the southern part of the county is governed by a local system called the Costilla Survey (C). The first letter of the well location designates the survey.

A survey is subdivided into four quadrants formed by the intersection of the baseline and the principal meridian. The second letter of the well location designates the quadrant: A indicates the northeast quadrant, B the northwest, C the southwest, and D the southeast. A quadrant is subdivided in the north-south direction every 6 mi (10 km) by townships and is subdivided in the east-west direction every 6 mi (10 km) by ranges. The first number of the well location designates the township and the second number designates the range.

The 36-mi$^2$ (93-km$^2$) area described by the township and range designation is subdivided into 1-mi$^2$ (2.59-km$^2$) areas called sections. The sections are numbered sequentially. The third number of the well location designates the section. The section, which contains 640 acres (259 ha), is subdivided into quarter sections. The 160-acre (64.8-ha) area is designated by the first letter following the section: A indicates the northeast quarter, B the northwest, C the southwest, and D the southeast. The quarter section is subdivided into quarter-quarter sections. The 40-acre (16.2-ha) area is designated in the same manner by the second letter following the section. The quarter-quarter section is subdivided into quarter-quarter-quarter sections. The 10-acre (4.0-ha) area is designated in the same manner by the third letter following the section. If more than one well is located within the 10-acre (4.0-ha) tract, the wells are numbered sequentially in the order in which they were originally inventoried. If this number is necessary, it will follow the three-letter designation.

The local number is provided for continuity with older reports.

Measurements are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well insure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

## Publications

Publication of ground-water level data for the United States in water-supply papers was begun by the Geological Survey in 1935. From 1935 through 1939, a single water-supply paper covering the entire nation was issued each year (Water-Supply Papers 777, 817, 840, 845, and 886). From 1940 through 1974, separate water-supply papers were issued for six sections of the United States. Water-level data for Colorado are included in the water-supply papers listed below, each report containing one or more calendar years (January through December) of data. Data in this report are for the 12-month water year ending September 30.

| Calendar year | WSP no. | Calendar year | WSP no. | Calendar year | WSP no. | Calendar year | WSP no. |
|---|---|---|---|---|---|---|---|
| 1940 | 910 | 1945 | 1027 | 1950 | 1169 | 1955 | 1408 |
| 1941 | 940 | 1946 | 1075 | 1951 | 1195 | 1956-60 | 1760 |
| 1942 | 948 | 1947 | 1100 | 1952 | 1225 | 1961-65 | 1845 |
| 1943 | 990 | 1948 | 1130 | 1953 | 1269 | 1966-70 | 1980 |
| 1944 | 1020 | 1949 | 1160 | 1954 | 1325 | | |

Information about reports and other data on ground water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

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# PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

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## COLORADO RIVER MAIN STEM

### 09010500 COLORADO RIVER BELOW BAKER GULCH, NEAR GRAND LAKE, CO

LOCATION.--Lat 40°19'33", long 105°51'22", in NE¼NW¼ sec.12, T.4 N., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 500 ft (150 m) downstream from Baker Gulch, 1.0 mi (1.6 km) upstream from Bowen Gulch, and 5.5 mi (8.8 km) northwest of town of Grand Lake.

DRAINAGE AREA.--53.4 mi² (138 km²).

PERIOD OF RECORD.--May 1953 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,750 ft (2,667 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversion above station by Grand River ditch (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--27 years, 62.2 ft³/s (1.762 m³/s), 45,060 acre-ft/yr (55.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 976 ft³/s (27.6 m³/s) June 30, 1957, gage height, 7.19 ft (2.192 m); maximum gage height, 7.30 ft (2.225 m) June 25, 1971; minimum daily discharge, 3.0 ft³/s (0.085 m³/s) Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 699 ft³/s (19.8 m³/s) at 0300 June 12, gage height, 6.91 ft (2.106 m); minimum daily, 5.4 ft³/s (0.15 m³/s) Feb. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 19 | 9.6 | 10 | 8.0 | 6.4 | 6.4 | 7.0 | 54 | 289 | 246 | 41 | 12 |
| 2 | 18 | 8.2 | 10 | 8.0 | 6.4 | 6.4 | 7.0 | 50 | 293 | 274 | 38 | 10 |
| 3 | 19 | 8.9 | 10 | 8.0 | 6.4 | 6.4 | 7.0 | 54 | 308 | 261 | 35 | 8.6 |
| 4 | 16 | 8.8 | 10 | 8.0 | 6.4 | 6.4 | 7.0 | 62 | 370 | 218 | 32 | 7.9 |
| 5 | 16 | 9.4 | 10 | 8.0 | 6.4 | 6.4 | 7.0 | 73 | 428 | 189 | 29 | 7.8 |
| 6 | 15 | 9.6 | 10 | 8.0 | 6.4 | 6.4 | 7.0 | 81 | 469 | 168 | 29 | 7.1 |
| 7 | 15 | 9.9 | 10 | 8.0 | 6.0 | 6.4 | 7.4 | 96 | 481 | 148 | 25 | 6.9 |
| 8 | 14 | 10 | 10 | 8.0 | 5.4 | 6.4 | 7.4 | 122 | 469 | 136 | 23 | 12 |
| 9 | 13 | 9.8 | 10 | 8.0 | 5.4 | 6.4 | 7.4 | 127 | 523 | 123 | 24 | 23 |
| 10 | 13 | 9.6 | 10 | 7.5 | 5.4 | 6.4 | 7.4 | 127 | 569 | 121 | 23 | 15 |
| 11 | 14 | 9.5 | 10 | 7.0 | 6.0 | 6.4 | 7.4 | 126 | 612 | 116 | 19 | 17 |
| 12 | 12 | 9.6 | 10 | 7.0 | 6.0 | 6.4 | 7.0 | 111 | 662 | 112 | 18 | 16 |
| 13 | 12 | 9.8 | 9.0 | 7.0 | 6.0 | 6.4 | 7.0 | 69 | 647 | 104 | 19 | 19 |
| 14 | 12 | 10 | 9.0 | 7.0 | 6.0 | 6.4 | 7.8 | 80 | 620 | 97 | 23 | 14 |
| 15 | 12 | 10 | 9.0 | 7.0 | 6.0 | 6.4 | 9.0 | 82 | 575 | 89 | 44 | 11 |
| 16 | 13 | 10 | 9.0 | 7.0 | 6.0 | 6.4 | 10 | 88 | 519 | 84 | 41 | 14 |
| 17 | 14 | 10 | 9.0 | 7.0 | 6.0 | 6.4 | 12 | 88 | 504 | 78 | 32 | 12 |
| 18 | 14 | 10 | 9.0 | 7.0 | 6.0 | 6.4 | 15 | 89 | 431 | 74 | 23 | 12 |
| 19 | 13 | 10 | 9.0 | 7.0 | 6.0 | 6.4 | 12 | 105 | 373 | 71 | 19 | 10 |
| 20 | 14 | 10 | 8.0 | 7.0 | 6.0 | 6.4 | 15 | 138 | 339 | 67 | 16 | 23 |
| 21 | 16 | 10 | 8.0 | 6.4 | 6.0 | 6.4 | 17 | 170 | 332 | 62 | 15 | 18 |
| 22 | 12 | 10 | 8.0 | 6.4 | 6.0 | 6.4 | 20 | 224 | 318 | 58 | 13 | 14 |
| 23 | 12 | 10 | 8.0 | 6.4 | 6.0 | 6.4 | 25 | 273 | 320 | 56 | 12 | 16 |
| 24 | 14 | 10 | 8.0 | 6.4 | 6.4 | 6.4 | 35 | 305 | 329 | 64 | 14 | 18 |
| 25 | 13 | 10 | 8.0 | 6.4 | 6.4 | 7.0 | 45 | 279 | 319 | 73 | 23 | 17 |
| 26 | 13 | 10 | 8.0 | 6.4 | 6.4 | 7.0 | 37 | 242 | 315 | 61 | 42 | 18 |
| 27 | 13 | 10 | 8.0 | 6.4 | 6.4 | 7.0 | 40 | 214 | 303 | 52 | 23 | 18 |
| 28 | 11 | 10 | 8.0 | 6.4 | 6.4 | 7.0 | 45 | 246 | 272 | 46 | 18 | 17 |
| 29 | 11 | 10 | 8.0 | 6.4 | 6.4 | 7.0 | 50 | 281 | 239 | 43 | 14 | 17 |
| 30 | 8.7 | 10 | 8.0 | 6.4 | --- | 7.0 | 54 | 257 | 223 | 43 | 13 | 16 |
| 31 | 9.3 | --- | 8.0 | 6.4 | --- | 7.0 | --- | 280 | --- | 51 | 14 | --- |
| TOTAL | 421.0 | 292.7 | 279.0 | 219.9 | 177.0 | 202.6 | 541.8 | 4613 | 12451 | 3385 | 754 | 427.3 |
| MEAN | 13.6 | 9.76 | 9.00 | 7.09 | 6.10 | 6.54 | 18.1 | 149 | 415 | 109 | 24.3 | 14.2 |
| MAX | 19 | 10 | 10 | 8.0 | 6.4 | 7.0 | 54 | 305 | 662 | 274 | 44 | 23 |
| MIN | 8.7 | 8.2 | 8.0 | 6.4 | 5.4 | 6.4 | 7.0 | 50 | 223 | 43 | 12 | 6.9 |
| AC-FT | 835 | 581 | 553 | 436 | 351 | 402 | 1070 | 9150 | 24700 | 6710 | 1500 | 848 |

CAL YR 1979 TOTAL 27225.7 MEAN 74.6 MAX 655 MIN 5.8 AC-FT 54000
WTR YR 1980 TOTAL 23764.3 MEAN 64.9 MAX 662 MIN 5.4 AC-FT 47140

## 09011000 COLORADO RIVER NEAR GRAND LAKE, CO

LOCATION.--Lat 40°13'08", long 105°51'25", in NE¼SW¼ sec.13, T.3 N., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 200 ft (61 m) downstream from bridge on U.S. Highway 34, 400 ft (120 m) upstream from high-water line of Shadow Mountain Lake at elevation 8,367 ft (2,550.3 m), and 3.0 mi (4.8 km) southwest of town of Grand Lake.

DRAINAGE AREA.--102 mi² (264 km²).

PERIOD OF RECORD.--July 1904 to September 1918, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as Grand River (North Fork) near Grand Lake 1904 and as North Fork of Grand River near Grand Lake 1905-18.

REVISED RECORDS.--WSP 1213: 1914. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,380 ft (2,554 m), from topographic map. Prior to June 15, 1934, nonrecording gage at present site and datum. June 15, 1934, to Sept. 26, 1944, water-stage recorder at site 1,100 ft (340 m) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 200 acres (809,000 m²) of hay meadows above station and about 2,000 acres (8.09 km²) below. Transmountain diversion above station by Grand River ditch through La Poudre Pass to Cache la Poudre River basin (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--61 years (water years 1905-18, 1934-80), 90.2 ft³/s (2.554 m³/s), 65,350 acre-ft/yr (80.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,840 ft³/s (52.1 m³/s) June 15, 16, 1918, gage height, 7.0 ft (2.13 m), from rating curve extended above 1,100 ft³/s (31 m³/s); maximum gage height, 8.21 ft (2.502 m) Apr. 20, 1971 (backwater from ice); minimum daily discharge, 1.7 ft³/s (0.048 m³/s) July 18, 19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 726 ft³/s (20.6 m³/s) at 1200 June 12, gage height, 6.06 ft (1.847 m); minimum daily, 8.2 ft³/s (0.23 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 27 | 19 | 17 | 15 | 15 | 15 | 15 | 99 | 400 | 164 | 8.6 | 22 |
| 2 | 27 | 18 | 17 | 15 | 15 | 15 | 15 | 94 | 379 | 191 | 8.3 | 21 |
| 3 | 26 | 17 | 17 | 15 | 15 | 15 | 14 | 97 | 345 | 193 | 8.2 | 19 |
| 4 | 26 | 16 | 17 | 16 | 15 | 15 | 14 | 110 | 407 | 136 | 16 | 18 |
| 5 | 26 | 15 | 17 | 16 | 15 | 15 | 14 | 136 | 465 | 104 | 32 | 17 |
| 6 | 26 | 14 | 17 | 16 | 15 | 15 | 14 | 156 | 499 | 81 | 33 | 17 |
| 7 | 25 | 16 | 17 | 16 | 15 | 15 | 14 | 190 | 512 | 60 | 31 | 17 |
| 8 | 25 | 17 | 17 | 16 | 13 | 15 | 14 | 227 | 500 | 48 | 29 | 18 |
| 9 | 24 | 18 | 17 | 16 | 13 | 15 | 14 | 238 | 534 | 40 | 28 | 33 |
| 10 | 24 | 18 | 17 | 16 | 13 | 15 | 14 | 248 | 599 | 33 | 29 | 27 |
| 11 | 24 | 18 | 17 | 16 | 14 | 15 | 14 | 251 | 633 | 26 | 27 | 30 |
| 12 | 24 | 18 | 17 | 16 | 15 | 15 | 14 | 214 | 684 | 32 | 27 | 25 |
| 13 | 23 | 18 | 16 | 16 | 15 | 15 | 14 | 152 | 684 | 23 | 25 | 28 |
| 14 | 23 | 17 | 16 | 16 | 15 | 15 | 14 | 128 | 653 | 19 | 28 | 25 |
| 15 | 23 | 17 | 16 | 16 | 15 | 15 | 14 | 128 | 594 | 15 | 48 | 21 |
| 16 | 24 | 17 | 16 | 16 | 15 | 15 | 14 | 139 | 507 | 14 | 52 | 22 |
| 17 | 25 | 17 | 16 | 16 | 15 | 15 | 16 | 163 | 465 | 13 | 43 | 22 |
| 18 | 25 | 17 | 16 | 16 | 15 | 15 | 20 | 137 | 444 | 12 | 33 | 20 |
| 19 | 25 | 17 | 15 | 16 | 15 | 15 | 19 | 166 | 368 | 12 | 28 | 20 |
| 20 | 25 | 17 | 15 | 15 | 15 | 15 | 18 | 192 | 317 | 11 | 25 | 27 |
| 21 | 29 | 17 | 15 | 15 | 15 | 15 | 20 | 221 | 300 | 11 | 24 | 32 |
| 22 | 26 | 17 | 15 | 15 | 15 | 15 | 26 | 311 | 285 | 10 | 22 | 24 |
| 23 | 24 | 17 | 15 | 15 | 15 | 15 | 40 | 370 | 279 | 10 | 21 | 22 |
| 24 | 26 | 17 | 15 | 15 | 15 | 15 | 53 | 416 | 285 | 10 | 22 | 24 |
| 25 | 25 | 17 | 15 | 15 | 15 | 15 | 88 | 407 | 276 | 14 | 29 | 24 |
| 26 | 24 | 17 | 15 | 15 | 15 | 15 | 65 | 367 | 267 | 12 | 52 | 24 |
| 27 | 25 | 17 | 15 | 15 | 15 | 15 | 77 | 318 | 248 | 10 | 36 | 25 |
| 28 | 24 | 17 | 15 | 15 | 15 | 15 | 87 | 343 | 213 | 9.1 | 29 | 24 |
| 29 | 23 | 17 | 15 | 15 | 15 | 15 | 93 | 394 | 172 | 8.5 | 24 | 24 |
| 30 | 21 | 17 | 15 | 15 | --- | 15 | 98 | 365 | 138 | 8.4 | 22 | 23 |
| 31 | 20 | --- | 15 | 15 | --- | 15 | --- | 382 | --- | 9.7 | 23 | --- |
| TOTAL | 764 | 511 | 495 | 481 | 428 | 465 | 946 | 7159 | 12452 | 1339.7 | 863.1 | 695 |
| MEAN | 24.6 | 17.0 | 16.0 | 15.5 | 14.8 | 15.0 | 31.5 | 231 | 415 | 43.2 | 27.8 | 23.2 |
| MAX | 29 | 19 | 17 | 16 | 15 | 15 | 98 | 416 | 684 | 193 | 52 | 33 |
| MIN | 20 | 14 | 15 | 15 | 13 | 15 | 14 | 94 | 138 | 8.4 | 8.2 | 17 |
| AC-FT | 1520 | 1010 | 982 | 954 | 849 | 922 | 1880 | 14200 | 24700 | 2660 | 1710 | 1380 |

CAL YR 1979 TOTAL 32786.0 MEAN 89.8 MAX 737 MIN 13 AC-FT 65030
WTR YR 1980 TOTAL 26598.8 MEAN 72.7 MAX 684 MIN 8.2 AC-FT 52760

## 09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO

LOCATION.--Lat 40°19'40", long 105°34'39", in SW¼NW¼ sec.9, T.4 N., R.73 W., Larimer County, Hydrologic Unit 10190006, on right bank at upstream end of Aspen Creek siphon, 700 ft (210 m) downstream from east portal, and 4.5 mi (7.2 km) southwest of Estes Park.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year (monthly discharge only for August and September 1947).

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 8,250 ft (2,515 m), from topographic map. Prior to Oct. 1, 1950, water-stage recorder and Parshall flume at different datum. Oct. 1, 1950, to Sept. 30, 1952, water-stage recorder and Cippoletti weir at different datum.

REMARKS.--Records excellent. This is a transmountain diversion from Grand Lake and Shadow Mountain Lake for power and irrigation developments in the South Platte River basin as part of the Colorado-Big Thompson project. Diversion point is at west portal near town of Grand Lake, 13.35 mi (21.48 km) west of east portal.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--34 years, 270 ft³/s (7.646 m³/s), 195,600 acre-ft/yr (241 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 592 ft³/s (16.8 m³/s) June 30, 1962; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 213 | 319 | 316 | 247 | 350 | 162 | 300 | 1.0 | 1.0 | 108 | 355 | 206 |
| 2 | 297 | 361 | 196 | 257 | 216 | 208 | 305 | .60 | 1.0 | 1.0 | 280 | 209 |
| 3 | 352 | 166 | 239 | 267 | 215 | 252 | 304 | .60 | .40 | .30 | 213 | 407 |
| 4 | 356 | 175 | 236 | 282 | 381 | 339 | 178 | .70 | .00 | .50 | 289 | 208 |
| 5 | 370 | 191 | 255 | 212 | 222 | 523 | 178 | .60 | .00 | 329 | 212 | 266 |
| 6 | 334 | 182 | 253 | 210 | 221 | 423 | 179 | .20 | .00 | 105 | 199 | 262 |
| 7 | 368 | 211 | 244 | 348 | 348 | 323 | 178 | .20 | .00 | 275 | 313 | 259 |
| 8 | 157 | 160 | 213 | 332 | 337 | 314 | 178 | 133 | .00 | 508 | 327 | 360 |
| 9 | 410 | 150 | 210 | 341 | 283 | 385 | 178 | 182 | .00 | 209 | 296 | 266 |
| 10 | 204 | 217 | 241 | 280 | 216 | 389 | 179 | 228 | .00 | 194 | 301 | 264 |
| 11 | 239 | 244 | 254 | 255 | 372 | 429 | 178 | 337 | .00 | 45 | 301 | 258 |
| 12 | 192 | 179 | 252 | 204 | 319 | 431 | 178 | 303 | .00 | .80 | 343 | 277 |
| 13 | 74 | 155 | 249 | 150 | 321 | 431 | 178 | 318 | .00 | .90 | 289 | 209 |
| 14 | .50 | 161 | 253 | 258 | 325 | 419 | 179 | 297 | .00 | .80 | 291 | 209 |
| 15 | 52 | 199 | 247 | 307 | 372 | 417 | 178 | 451 | .00 | 226 | 411 | 278 |
| 16 | 191 | 198 | 240 | 277 | 391 | 415 | 178 | 106 | .00 | 366 | 158 | 305 |
| 17 | 209 | 195 | 256 | 277 | 372 | 235 | 175 | .40 | .00 | 203 | 281 | 304 |
| 18 | 148 | 195 | 253 | 277 | 341 | 210 | 3.5 | .40 | 135 | 202 | 382 | 252 |
| 19 | 82 | 195 | 188 | 304 | 346 | 210 | 129 | 1.0 | 170 | 202 | 472 | 278 |
| 20 | .75 | 325 | 209 | 207 | 350 | 209 | 90 | 2.2 | 89 | 203 | 505 | 173 |
| 21 | 54 | 404 | 256 | 299 | 346 | 270 | .91 | 1.7 | 95 | 194 | 528 | 188 |
| 22 | 100 | 406 | 254 | 305 | 435 | 212 | 101 | 2.0 | 1.0 | 194 | 513 | 213 |
| 23 | 51 | 308 | 119 | 305 | 447 | 201 | 1.2 | 3.0 | 2.0 | 194 | 416 | 144 |
| 24 | .20 | 103 | 268 | 311 | 278 | 201 | 101 | 3.0 | 20 | 247 | 215 | 219 |
| 25 | 119 | .60 | 122 | 316 | 339 | 201 | 64 | 3.0 | 1.0 | 201 | 286 | 232 |
| 26 | 275 | 152 | 254 | 364 | 297 | 293 | 1.0 | 1.0 | 118 | 254 | 286 | 238 |
| 27 | 249 | 166 | 315 | 366 | 546 | 209 | .40 | 67 | 1.0 | 203 | 313 | 243 |
| 28 | 220 | 236 | 285 | 363 | 548 | 218 | 192 | 2.0 | 1.0 | 171 | 208 | 236 |
| 29 | 181 | 248 | 244 | 368 | 540 | 206 | 248 | 1.0 | 154 | 295 | 208 | 216 |
| 30 | 341 | 267 | 255 | 348 | --- | 207 | 1.2 | 1.0 | 189 | 510 | 208 | 141 |
| 31 | 503 | --- | 250 | 335 | --- | 305 | --- | 1.0 | --- | 504 | 209 | --- |
| TOTAL | 6341.45 | 6468.60 | 7436 | 8972 | 10074 | 9247 | 4334.21 | 2448.60 | 978.40 | 6146.30 | 9608 | 7320 |
| MEAN | 205 | 216 | 240 | 289 | 347 | 298 | 144 | 79.0 | 32.6 | 198 | 310 | 244 |
| MAX | 503 | 406 | 316 | 368 | 548 | 523 | 305 | 451 | 189 | 510 | 528 | 407 |
| MIN | .20 | .60 | 119 | 150 | 215 | 162 | .40 | .20 | .00 | .30 | 158 | 141 |
| AC-FT | 12580 | 12830 | 14750 | 17800 | 19980 | 18340 | 8600 | 4860 | 1940 | 12190 | 19060 | 14520 |

CAL YR 1979 TOTAL 79705.31 MEAN 218 MAX 527 MIN .00 AC-FT 158100
WTR YR 1980 TOTAL 79374.56 MEAN 217 MAX 548 MIN .00 AC-FT 157400

### 09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1970 to current year.

REMARKS.--Field data collected prior to 1974 water year are available in district office.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 23... | 1200 | 200 | 34 | 6.9 | 8.0 | 8.0 | 27 | K5 | 13 | 2 | 3.9 |
| NOV 28... | 1050 | 521 | 41 | 7.1 | 2.0 | 8.3 | K10 | K1 | 17 | 2 | 5.0 |
| DEC 19... | 0910 | 429 | 44 | 7.0 | 3.0 | 8.3 | -- | -- | 17 | 0 | 5.5 |
| JAN 22... | 0945 | 494 | 55 | 6.7 | 1.5 | 8.2 | -- | -- | 20 | 2 | 5.9 |
| FEB 20... | 1120 | 512 | 55 | 6.6 | 2.0 | 7.8 | -- | -- | 22 | 1 | 6.7 |
| MAR 10... | 1450 | 496 | 55 | 6.6 | 2.0 | 6.4 | -- | -- | 22 | 1 | 6.6 |
| APR 08... | 0800 | 179 | 54 | 6.6 | 2.0 | 8.7 | K6 | < 1 | 21 | 3 | 6.4 |
| MAY 06... | 0830 | 6.4 | 43 | 6.8 | 2.5 | 8.4 | K7 | K1 | 14 | 5 | 3.8 |
| JUL 15... | 0950 | 500 | 17 | 7.1 | 15.0 | 7.4 | K18 | < 1 | 5 | 0 | 1.9 |
| AUG 14... | 0840 | 387 | 30 | 7.0 | 17.0 | 6.6 | 27 | K5 | 12 | 1 | 3.5 |
| SEP 17... | 0920 | 467 | 42 | 6.7 | 12.5 | 7.4 | K3 | K1 | 16 | 1 | 4.9 |

K BASED ON NON-IDEAL COLONY COUNT.

### 09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 23... | .8 | 1.6 | .2 | .5 | 11 | 5.3 | .4 | .4 | 4.2 | 24 | 13.0 |
| NOV 28... | 1.0 | 2.0 | .2 | .6 | 15 | 6.9 | .4 | .1 | 4.8 | 30 | 42.2 |
| DEC 19... | .8 | 2.1 | .2 | .6 | 19 | 1.5 | .3 | .2 | 5.0 | 28 | 32.4 |
| JAN 22... | 1.3 | 1.9 | .2 | .8 | 18 | 2.3 | .3 | .1 | 4.9 | 29 | 38.7 |
| FEB 20... | 1.2 | 2.2 | .2 | .7 | 21 | .9 | .8 | .2 | 5.2 | 31 | 42.9 |
| MAR 10... | 1.4 | 2.2 | .2 | .7 | 21 | 1.4 | .2 | .1 | 5.6 | 32 | 42.9 |
| APR 08... | 1.2 | 2.1 | .2 | .8 | 18 | 3.1 | .2 | .1 | 5.2 | 31 | 15.0 |
| MAY 06... | 1.1 | 3.6 | .4 | .5 | 9 | 4.1 | .6 | .3 | 14 | 34 | .59 |
| JUL 15... | .1 | 1.0 | .2 | .2 | 7 | 2.2 | .2 | .2 | 3.5 | 14 | 18.9 |
| AUG 14... | .7 | 1.4 | .2 | .4 | 11 | 1.2 | .6 | .2 | 4.1 | 19 | 19.9 |
| SEP 17... | .9 | 1.6 | .2 | .7 | 15 | .6 | .2 | .1 | 3.8 | 22 | 27.7 |

| DATE | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, TOTAL (MG/L AS N) | CADMIUM DISSOLVED (UG/L AS CD) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) | MANGANESE, DISSOLVED (UG/L AS MN) | NICKEL, DISSOLVED (UG/L AS NI) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 23... | .00 | .02 | .49 | .49 | 0 | 0 | 30 | 0 | 1 | 0 | 0 |
| NOV 28... | .08 | .10 | -- | -- | -- | -- | 50 | -- | 3 | -- | -- |
| DEC 19... | .14 | .13 | .41 | .55 | -- | -- | 60 | -- | 2 | -- | -- |
| JAN 22... | .15 | .15 | .27 | .42 | <1 | 0 | 100 | 0 | 2 | 5 | <3 |
| FEB 20... | .16 | .16 | .79 | .95 | -- | -- | 110 | -- | 2 | -- | -- |
| MAR 10... | .16 | .15 | .26 | .42 | -- | -- | 130 | -- | 1 | -- | -- |
| APR 08... | .17 | .16 | .36 | .53 | <1 | 1 | 110 | 0 | 5 | 0 | <3 |
| MAY 06... | .07 | .08 | .30 | .37 | -- | -- | 360 | -- | 6 | -- | -- |
| JUL 15... | .00 | .00 | .64 | .64 | <1 | 4 | 30 | 3 | <1 | 0 | <3 |
| AUG 14... | .00 | .00 | 1.2 | 1.2 | -- | -- | 70 | -- | 4 | -- | -- |
| SEP 17... | .00 | .00 | .49 | .49 | -- | -- | 30 | -- | <1 | -- | -- |

## 09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO

LOCATION.--Lat 40°12'26", long 105°50'27", in SW¼NW¼ sec.19, T.3 N., R.75 W., Grand County, Hydrologic Unit 14010001, in gate house on left side of outlet gates near center of Shadow Mountain Dam on Colorado River, 1.0 mi (1.6 km) upstream from Pole Creek and 3.2 mi (5.1 km) south of town of Grand Lake.

DRAINAGE AREA.--185 mi² (479 km²).

PERIOD OF RECORD.--April 1947 to current year. Prior to October 1960, published as Shadow Mountain Reservoir near Grand Lake.

REVISED RECORDS.--WSP 1149: 1947-48. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service); gage readings have been reduced to elevations NGVD. Supplementary water-stage recorder on Grand Lake, 800 ft (240 m) north of outlet gates and 2.9 mi (4.7 km) north of Shadow Mountain Dam.

REMARKS.--Lake is formed by earth and rockfill dam and dikes. Storage began in April 1947. Capacity, 17,860 acre-ft (22.0 hm³), including usable capacity of Grand Lake above elevation 8,365 ft (2,549.7 m) between elevation 8,347 ft (2,544.2 m), sill of outlet gate, and 8,367 ft (2,550.3 m), maximum water surface. Dead storage in Shadow Mountain Lake, 506 acre-ft (624,000 m³). Dead storage in Grand Lake not determined. Shadow Mountain Lake is used for stabilization of water level in Grand Lake. Usable capacity for diversion through Alva B. Adams tunnel, 3,660 acre-ft (4.51 hm³) between elevations 8,365 ft (2,549.7 m), crest of tunnel inlet, and 8,367 ft (2,550.3 m), maximum water surface. Figures given represent usable contents as determined from summation of individual contents of Grand Lake and Shadow Mountain Lake. Transmountain diversion from Colorado River basin, including water pumped from Lake Granby, is effected through Grand Lake and Alva B. Adams tunnel, for power and irrigation in South Platte River basin.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 17,920 acre-ft (22.1 hm³) May 22, 1955, elevation, 8,367.03 ft (2,550.271 m); minimum since appreciable storage was first attained, 2,630 acre-ft (3.24 hm³) May 14, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 17,770 acre-ft (21.9 hm³) Sept. 20, elevation, 8,366.95 ft (2,550.246 m); minimum, 15,060 acre-ft (18.6 hm³) June 11, elevation, 8,365.50 ft (2,549.804 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Date | Elevation | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 8,366.70 | 17,310 | - |
| Oct. 31 | 8,366.53 | 17,010 | -300 |
| Nov. 30 | 8,366.67 | 17,220 | +210 |
| Dec. 31 | 8,366.69 | 17,290 | +70 |
| CAL YR 1979 | | | -50 |
| Jan. 31 | 8,366.58 | 17,100 | -190 |
| Feb. 29 | 8,366.75 | 17,400 | +300 |
| Mar. 31 | 8,366.61 | 17,160 | -240 |
| Apr. 30 | 8,366.62 | 17,190 | +30 |
| May 31 | 8,366.18 | 16,440 | -750 |
| June 30 | 8,366.75 | 17,460 | +1,020 |
| July 31 | 8,366.65 | 17,230 | -230 |
| Aug. 31 | 8,366.83 | 17,560 | +330 |
| Sept. 30 | 8,366.75 | 17,410 | -150 |
| WTR YR 1980 | | | +100 |

## 09018300 GRANBY PUMP CANAL NEAR GRAND LAKE, CC

LOCATION.--Lat 40°12'25", long 105°50'56", in SW¼NE¼ sec.24, T. 3 N., R.76 W., Grand County, Hydrologic Unit 14010001, at road crossing at south end of Shadow Mountain Lake, 4 mi southwest of Grand Lake, and 13.5 mi northeast of Granby.

PERIOD OF RECORD.--September 1970 to September 1975, March 1978 to current year.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAR | | | | | | | | | | | | |
| 05... | 1620 | 29 | 60 | 8.2 | 3.5 | -- | <1 | <1 | .19 | .02 | .21 | .010 |
| JUL | | | | | | | | | | | | |
| 15... | 1130 | 404 | 55 | 8.0 | 10.0 | 7.5 | -- | -- | .09 | .54 | .63 | .020 |
| 24... | 0620 | 200 | 48 | 8.8 | 10.0 | 6.5 | >400 | -- | .11 | .62 | .73 | .030 |
| AUG | | | | | | | | | | | | |
| 27... | 0800 | 798 | 60 | 8.0 | 13.0 | 7.1 | K17 | <1 | .00 | .29 | .29 | .010 |

K BASED ON NON-IDEAL COLONY COUNT.

## 09018500 LAKE GRANBY NEAR GRANBY, CO

LOCATION.--Lat 40°10'55", long 105°52'14", in NW¼NE¼ sec.35, T.3 N., R.76 W., Grand County, Hydrologic Unit 14010001, in Granby pumping plant at north shore of lake, 2.5 mi (4.0 km) north of Granby Dam on Colorado River and 7.5 mi (12.1 km) northeast of Granby.

DRAINAGE AREA.--312 mi$^2$ (808 km$^2$).

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1955, published as Granby Reservoir near Granby.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service); gage readings have been reduced to elevations NGVD. Prior to Apr. 9, 1951, nonrecording gage at dam at present datum.

REMARKS.--Lake is formed by earthfill dam and dikes. Regulation began Sept. 13, 1949, and usuable storage began June 14, 1950, while dam was under construction. Usable capacity, 465,600 acre-ft (574 hm$^3$) between elevations 8,186.00 ft (2,495.093 m), trash rack sill at outlet, and 8,280.00 ft (2,523.744 m), top of radial spillway gates. Dead storage, 74,190 acre-ft (91.5 hm$^3$). Figures given represent usable contents. Lake is used to store water for pumping to Shadow Mountain Lake for transmountain diversion through Alva B. Adams tunnel for power and irrigation in South Platte River basin.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 465,900 acre-ft (574 hm$^3$) July 13, 1962, elevation, 8,280.05 ft (2,523.759 m); minimum since appreciable storage was attained, 13,070 acre-ft (16.1 hm$^3$) Apr. 16, 1978, elevation, 8,190.93 ft (2,496.595 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 441,600 acre-ft (544 hm$^3$) July 16, 18, elevation, 8,276.66 ft (2,522.726 m); minimum, 239,600 acre-ft (295 hm$^3$) Apr. 16, elevation, 8,244.95 ft (2,513.061 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Date | Elevation | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 8,259.72 | 327,800 | - |
| Oct. 31 | 8,257.78 | 315,700 | -12,100 |
| Nov. 30 | 8,256.12 | 305,500 | -10,200 |
| Dec. 31 | 8,253.97 | 292,400 | -13,100 |
| CAL YR 1979 | | | +140,500 |
| Jan. 31 | 8,251.65 | 278,600 | -13,800 |
| Feb. 29 | 8,248.64 | 261,100 | -17,500 |
| Mar. 31 | 8,245.90 | 245,400 | -15,700 |
| Apr. 30 | 8,245.88 | 245,300 | -100 |
| May 31 | 8,256.35 | 306,900 | +61,600 |
| June 30 | 8,274.20 | 424,200 | +117,300 |
| July 31 | 8,276.05 | 437,200 | +13,000 |
| Aug. 31 | 8,273.81 | 421,500 | -15,700 |
| Sept. 30 | 8,272.19 | 410,200 | -11,300 |
| WTR YR 1980 | | | +82,400 |

## 09018500 LAKE GRANBY NEAR GRANBY. CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1973 to June 1975. June 1979. and June 1980.

### WATER-QUALITY DATA. WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | SAMP-LING DEPTH (FT) | TEMPER-ATURE. WATER (DEG C) | OXYGEN. DIS-SOLVED (MG/L) |
|---|---|---|---|---|
| JUN | | | | |
| 30... | 1045 | .1 | 16.5 | 7.8 |
| 30... | 1046 | 2.0 | 16.0 | 7.8 |
| 30... | 1047 | 5.0 | 16.0 | 8.0 |
| 30... | 1048 | 10.0 | 15.5 | 8.0 |
| 30... | 1049 | 20.0 | 15.0 | 7.6 |
| 30... | 1050 | 25.0 | 14.0 | 7.4 |
| 30... | 1051 | 30.0 | 13.5 | 7.4 |
| 30... | 1052 | 40.0 | 11.5 | 7.0 |
| 30... | 1053 | 50.0 | 10.0 | 6.5 |
| 30... | 1054 | 60.0 | 8.0 | 6.3 |

| DATE | TIME | SAMP-LING DEPTH (FT) | TEMPER-ATURE. WATER (DEG C) | OXYGEN. DIS-SOLVED (MG/L) |
|---|---|---|---|---|
| JUN | | | | |
| 30... | 1055 | 70.0 | 7.5 | 6.2 |
| 30... | 1056 | 75.0 | 7.0 | 6.1 |
| 30... | 1057 | 80.0 | 7.0 | 6.0 |
| 30... | 1058 | 90.0 | 6.5 | 6.0 |
| 30... | 1059 | 100 | 6.5 | 5.9 |
| 30... | 1100 | 110 | 6.0 | 5.8 |
| 30... | 1101 | 120 | 6.0 | 5.8 |
| 30... | 1102 | 125 | 6.0 | 5.7 |

| DATE | TIME | SAMP-LING DEPTH (FT) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | NITRO-GEN. NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN.AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN. TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|
| JUN | | | | | | | |
| 30... | 1045 | .1 | 50 | 7.8 | .00 | .34 | .34 |
| 30... | 1050 | 25.0 | -- | -- | .09 | .40 | .49 |

| DATE | PHOS-PHORUS. TOTAL (MG/L AS P) | CADMIUM DIS-SOLVED (UG/L AS CD) | COPPER. DIS-SOLVED (UG/L AS CU) | LEAD. DIS-SOLVED (UG/L AS PB) | NICKEL. DIS-SOLVED (UG/L AS NI) | ZINC. DIS-SOLVED (UG/L AS ZN) | PHYTO-PLANK-TON. TOTAL (CELLS PER ML) |
|---|---|---|---|---|---|---|---|
| JUN | | | | | | | |
| 30... | .020 | 0 | 3 | 0 | 0 | 10 | 5000 |
| 30... | .050 | 0 | 2 | 0 | 0 | 20 | -- |

## COLORADO RIVER BASIN

### 09018500 LAKE GRANBY NEAR GRANBY, CO--Continued

### PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO JUNE 1980

| | |
|---|---|
| DATE | JUN 30,80 |
| TIME | 1045 |
| TOTAL CELLS/ML | 5000 |
| DIVERSITY: DIVISION | 0.9 |
| .CLASS | 0.9 |
| ..ORDER | 1.6 |
| ...FAMILY | 1.9 |
| ....GENUS | 2.0 |

| ORGANISM | CELLS /ML | PER- CENT |
|---|---|---|
| CHLOROPHYTA (GREEN ALGAE) | | |
| .CHLOROPHYCEAE | | |
| ..CHLOROCOCCALES | | |
| ...OOCYSTACEAE | | |
| ....CHODATELLA | 39 | 1 |
| ..VOLVOCALES | | |
| ...CHLAMYDOMONADACEAE | | |
| ....CHLAMYDOMONAS | 26 | 1 |
| CHRYSOPHYTA | | |
| .BACILLARIOPHYCEAE | | |
| ..CENTRALES | | |
| ...COSCINODISCACEAE | | |
| ....MELOSIRA | 2600* | 52 |
| ..PENNALES | | |
| ...DIATOMACEAE | | |
| ....DIATOMA | 570 | 11 |
| ...FRAGILARIACEAE | | |
| ....ASTERIONELLA | 480 | 9 |
| ....FRAGILARIA | 90 | 2 |
| ....SYNEDRA | # | 0 |
| ...NITZSCHIACEAE | | |
| ....NITZSCHIA | 64 | 1 |
| CYANOPHYTA (BLUE-GREEN ALGAE) | | |
| .CYANOPHYCEAE | | |
| ..HORMOGONALES | | |
| ...NOSTOCACEAE | | |
| ....ANABAENA | 1200* | 23 |

NOTE: * - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
# - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## 09019000 COLORADO RIVER BELOW LAKE GRANBY, CO

LOCATION.--Lat 40°08'39", long 105°52'00", in SE¼SE¼ sec.11, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, on right bank 0.3 mi (0.5 km) downstream from Granby Dam, 1.0 mi (1.6 km) upstream from Walden Hollow, and 5.0 mi (8.0 km) northeast of Granby.

DRAINAGE AREA.--312 mi² (808 km²).

PERIOD OF RECORD.--October 1950 to current year. Prior to October 1955, published as "below Granby Reservoir."

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 8,050 ft (2,454 m), from topographic map.

REMARKS.--Records good. Seepage from Lake Granby, which varies from 2 to 8 ft³/s (0.06 to 0.23 m³/s) depending on elevation of Lake Granby, is not included in record. Flow completely regulated by Lake Granby (station 09018500). Several diversions for irrigation of hay meadows above station. Transmountain diversions by Eureka and Grand River ditches and Alva B. Adams tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years, 45.1 ft³/s (1.277 m³/s) 32,670 acre-ft/yr (40.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,520 ft³/s (43.0 m³/s) June 27-30, 1971, gage height, 3.95 ft (1.204 m); maximum gage height, 4.09 ft (1.247 m) July 3, 1973; minimum daily discharge, 5.1 ft³/s (0.14 m³/s) Oct. 8, 9, 1970, Sept. 3, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 114 ft³/s (3.23 m³/s) at 1300 July 14, gage height, 2.04 ft (0.622 m); minimum daily, 8.8 ft³/s (0.25 m³/s) Sept. 13, 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16 | 18 | 18 | 18 | 18 | 19 | 19 | 39 | 96 | 83 | 54 | 28 |
| 2 | 18 | 18 | 18 | 18 | 18 | 19 | 19 | 53 | 96 | 83 | 33 | 15 |
| 3 | 17 | 18 | 18 | 18 | 18 | 19 | 19 | 53 | 94 | 83 | 33 | 13 |
| 4 | 17 | 18 | 18 | 18 | 18 | 19 | 19 | 53 | 94 | 83 | 33 | 12 |
| 5 | 17 | 18 | 18 | 18 | 18 | 19 | 19 | 56 | 94 | 83 | 32 | 12 |
| 6 | 17 | 18 | 18 | 18 | 18 | 19 | 19 | 58 | 95 | 84 | 30 | 11 |
| 7 | 17 | 18 | 18 | 18 | 18 | 19 | 19 | 60 | 92 | 83 | 30 | 11 |
| 8 | 17 | 18 | 18 | 18 | 18 | 19 | 19 | 60 | 87 | 83 | 30 | 10 |
| 9 | 17 | 18 | 18 | 18 | 18 | 19 | 19 | 60 | 84 | 84 | 30 | 10 |
| 10 | 17 | 19 | 18 | 18 | 18 | 19 | 19 | 60 | 80 | 86 | 30 | 9.1 |
| 11 | 17 | 19 | 18 | 18 | 18 | 18 | 19 | 60 | 79 | 91 | 30 | 9.1 |
| 12 | 17 | 19 | 18 | 18 | 18 | 18 | 19 | 60 | 79 | 92 | 30 | 9.1 |
| 13 | 17 | 19 | 18 | 18 | 19 | 18 | 19 | 60 | 80 | 92 | 30 | 8.8 |
| 14 | 17 | 19 | 18 | 18 | 19 | 18 | 19 | 60 | 80 | 93 | 30 | 9.1 |
| 15 | 17 | 19 | 18 | 18 | 19 | 18 | 19 | 59 | 80 | 90 | 30 | 9.4 |
| 16 | 17 | 19 | 18 | 18 | 19 | 18 | 19 | 62 | 80 | 89 | 30 | 9.1 |
| 17 | 18 | 18 | 18 | 18 | 19 | 18 | 19 | 64 | 80 | 89 | 30 | 8.8 |
| 18 | 18 | 18 | 18 | 18 | 19 | 19 | 19 | 64 | 81 | 89 | 30 | 8.8 |
| 19 | 18 | 18 | 18 | 18 | 19 | 19 | 19 | 64 | 81 | 89 | 30 | 9.8 |
| 20 | 18 | 18 | 18 | 18 | 19 | 19 | 19 | 63 | 81 | 89 | 32 | 13 |
| 21 | 18 | 18 | 18 | 18 | 19 | 19 | 18 | 63 | 82 | 88 | 32 | 13 |
| 22 | 18 | 18 | 18 | 18 | 19 | 19 | 18 | 63 | 82 | 88 | 32 | 12 |
| 23 | 18 | 18 | 18 | 18 | 18 | 19 | 18 | 64 | 82 | 88 | 28 | 16 |
| 24 | 18 | 18 | 18 | 18 | 18 | 19 | 18 | 64 | 82 | 89 | 25 | 23 |
| 25 | 18 | 18 | 18 | 18 | 19 | 19 | 18 | 64 | 84 | 91 | 28 | 24 |
| 26 | 19 | 18 | 18 | 18 | 19 | 19 | 18 | 64 | 87 | 91 | 29 | 24 |
| 27 | 19 | 18 | 18 | 18 | 19 | 19 | 18 | 67 | 87 | 91 | 29 | 24 |
| 28 | 19 | 18 | 18 | 18 | 19 | 19 | 18 | 69 | 87 | 91 | 28 | 24 |
| 29 | 19 | 18 | 18 | 18 | 19 | 19 | 18 | 79 | 87 | 91 | 28 | 23 |
| 30 | 19 | 18 | 18 | 18 | --- | 19 | 18 | 87 | 84 | 91 | 28 | 21 |
| 31 | 18 | --- | 18 | 18 | --- | 19 | --- | 81 | --- | 91 | 28 | --- |
| TOTAL | 547 | 547 | 558 | 558 | 537 | 582 | 560 | 1933 | 2557 | 2728 | 952 | 430.1 |
| MEAN | 17.6 | 18.2 | 18.0 | 18.0 | 18.5 | 18.8 | 18.7 | 62.4 | 85.2 | 88.0 | 30.7 | 14.3 |
| MAX | 19 | 19 | 18 | 18 | 19 | 19 | 19 | 87 | 96 | 93 | 54 | 28 |
| MIN | 16 | 18 | 18 | 18 | 18 | 18 | 18 | 39 | 79 | 83 | 25 | 8.8 |
| AC-FT | 1080 | 1080 | 1110 | 1110 | 1070 | 1150 | 1110 | 3830 | 5070 | 5410 | 1890 | 853 |

CAL YR 1979 TOTAL 12897.0 MEAN 35.3 MAX 93 MIN 12 AC-FT 25580
WTR YR 1980 TOTAL 12489.1 MEAN 34.1 MAX 96 MIN 8.8 AC-FT 24770

## 09019500 COLORADO RIVER NEAR GRANBY, CO

LOCATION.--Lat 40°07'15", long 105°54'00", in SW¼NW¼ sec.22, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, on right bank 0.3 mi (0.5 km) upstream from bridge on U.S. Highway 34, 1.3 mi (2.1 km) upstream from Willow Creek, and 3.2 mi (5.1 km) northeast of Granby.

DRAINAGE AREA.--323 mi² (837 km²).

PERIOD OF RECORD.--October 1907 to September 1911 (published as Grand River near Granby), October 1933 to September 1953. May 1961 to current year (irrigation season only). Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,960 ft (2,426 m), from topographic map. June 10, 1908, to Sept. 30, 1911, and May 12 to June 10, 1934, nonrecording gage, at site 300 ft (91 m) upstream at different datums. June 11, 1934, to Sept. 30, 1953, water-stage recorder at present site and datum.

REMARKS.--Records good. Flow regulated by Lake Granby (station 09018500) since Sept. 13, 1949. Several diversions for irrigation of hay meadows above station. Transmountain diversions above station by Eureka and Grand River ditches and Alva B. Adams tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF SEASONAL RECORD.--Maximum discharge, 1,460 ft³/s (41.3 m³/s) July 1, 1973, gage height, 4.25 ft (1.295 m); minimum daily, 9.7 ft³/s (0.27 m³/s) Sept. 22, 1975.

EXTREMES FOR PERIOD OF CONTINUOUS RECORD.--Maximum discharge observed, 4,100 ft³/s (116 m³/s) June 20, 1909, gage height, 5.5 ft (1.68 m), site and datum then in use; minimum daily, 6.6 ft³/s (0.19 m³/s) Jan. 29, 1950; minimum observed prior to starting construction of Shadow Mountain Lake, 20 ft³/s (0.57 m³/s) Apr. 6, 1936 (discharge measurement).

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 100 ft³/s (2.83 m³/s) at 0830 June 1, gage height, 1.17 ft (0.357 m); minimum daily, 17 ft³/s (0.48 m³/s) Sept. 24, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | --- | 56 | 85 | 76 | 57 | 41 |
| 2 | | | | | | | --- | 76 | 79 | 76 | 40 | 27 |
| 3 | | | | | | | --- | 78 | 75 | 76 | 40 | 20 |
| 4 | | | | | | | --- | 72 | 78 | 74 | 43 | 21 |
| 5 | | | | | | | --- | 70 | 78 | 71 | 41 | 22 |
| 6 | | | | | | | --- | 72 | 81 | 72 | 40 | 21 |
| 7 | | | | | | | --- | 76 | 79 | 74 | 40 | 21 |
| 8 | | | | | | | --- | 75 | 78 | 71 | 40 | 22 |
| 9 | | | | | | | --- | 74 | 75 | 70 | 39 | 21 |
| 10 | | | | | | | --- | 71 | 78 | 72 | 40 | 20 |
| 11 | | | | | | | --- | 72 | 74 | 81 | 40 | 20 |
| 12 | | | | | | | --- | 75 | 75 | 83 | 39 | 20 |
| 13 | | | | | | | --- | 74 | 74 | 81 | 38 | 20 |
| 14 | | | | | | | --- | 71 | 75 | 81 | 39 | 20 |
| 15 | | | | | | | --- | 70 | 74 | 79 | 41 | 19 |
| 16 | | | | | | | --- | 71 | 72 | 76 | 39 | 18 |
| 17 | | | | | | | --- | 79 | 72 | 78 | 38 | 18 |
| 18 | | | | | | | --- | 79 | 74 | 75 | 37 | 18 |
| 19 | | | | | | | --- | 75 | 75 | 76 | 37 | 18 |
| 20 | | | | | | | --- | 75 | 75 | 76 | 38 | 24 |
| 21 | | | | | | | --- | 74 | 75 | 75 | 40 | 24 |
| 22 | | | | | | | 25 | 74 | 78 | 75 | 42 | 22 |
| 23 | | | | | | | 27 | 75 | 72 | 75 | 42 | 18 |
| 24 | | | | | | | 29 | 74 | 72 | 76 | 37 | 17 |
| 25 | | | | | | | 31 | 72 | 72 | 79 | 41 | 22 |
| 26 | | | | | | | 31 | 72 | 74 | 79 | 42 | 22 |
| 27 | | | | | | | 33 | 72 | 75 | 78 | 42 | 18 |
| 28 | | | | | | | 36 | 74 | 72 | 78 | 42 | 17 |
| 29 | | | | | | | 40 | 79 | 76 | 78 | 41 | 17 |
| 30 | | | | | | | 42 | 85 | 72 | 76 | 42 | 18 |
| 31 | | | | | | | --- | 82 | --- | 76 | 39 | --- |
| TOTAL | | | | | | | --- | 2294 | 2264 | 2363 | 1256 | 626 |
| MEAN | | | | | | | --- | 74.0 | 75.5 | 76.2 | 40.5 | 20.9 |
| MAX | | | | | | | --- | 85 | 85 | 83 | 57 | 41 |
| MIN | | | | | | | --- | 56 | 72 | 70 | 37 | 17 |
| AC-FT | | | | | | | --- | 4550 | 4490 | 4690 | 2490 | 1240 |

## 09020700 WILLOW CREEK RESERVOIR NEAR GRANBY, CO

LOCATION.--Lat 40°08'49", long 105°56'31", in SE¼ sec.7, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, in shaft house near right end of Willow Creek Dam, 3.2 mi (5.1 km) upstream from mouth, and 4.2 mi (6.8 km) north of Granby.

DRAINAGE AREA.--134 mi$^2$ (347 km$^2$).

PERIOD OF RECORD.--May 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by earth and rockfill dam; storage began March 1953. Dead storage pool filled May 3, 1953. Usable capacity, 9,060 acre-ft (11.2 hm$^3$) between elevations 8,077.00 ft (2,461.870 m), trash rack sill at outlet, and 8,130.00 ft (2,478.024 m), crest of spillway. Dead storage, 1,490 acre-ft (1.84 hm$^3$). Figures given represent usable contents. Water is pumped to Lake Granby for transmountain diversion for irrigation and power in South Platte River basin. Records are furnished by Water and Power Resources Service

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 9,060 acre-ft (11.2 hm$^3$) Aug. 3, 1953, elevation, 8,129.99 ft (2,478.021 m); minimum since first filling to spillway, 1,470 acre-ft (1.81 hm$^3$) Apr. 24, 1974, elevation, 8,090.14 ft (2,465.875 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,830 acre-ft (10.9 hm$^3$) Sept. 15, elevation, 8,129.20 ft (2,477.780 m); minimum, 5,660 acre-ft (6.98 hm$^3$) Nov. 29, elevation, 8,116.61 ft (2,473.943 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Date | Elevation | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 8,122.85 | 7,090 | - |
| Oct. 31 | 8,124.89 | 7,620 | +530 |
| Nov. 30 | 8,116.67 | 5,670 | -1,950 |
| Dec. 31 | 8,118.72 | 6,110 | +440 |
| CAL YR 1979 | | | +30 |
| Jan. 31 | 8,120.73 | 6,580 | +470 |
| Feb. 29 | 8,122.23 | 6,940 | +360 |
| Mar. 31 | 8,123.71 | 7,310 | +370 |
| Apr. 30 | 8,125.75 | 7,850 | +540 |
| May 31 | 8,128.52 | 8,630 | +780 |
| June 30 | 8,120.52 | 6,530 | -2,100 |
| July 31 | 8,123.90 | 7,360 | +830 |
| Aug. 31 | 8,127.37 | 8,300 | +940 |
| Sept. 30 | 8,125.39 | 7,750 | -550 |
| WTR YR 1980 | | | +660 |

## 09021000 WILLOW CREEK BELOW WILLOW CREEK RESERVOIR. CO

LOCATION.--Lat 40°08'45". long 105°56'22". in SE¼ sec.7. T.2 N.. R.76 W.. Grand County. Hydrologic Unit 14010001. on left bank 1.000 ft (300 m) downstream from Willow Creek Dam. 0.8 mi (1.3 km) upstream from Bunte Highline Canal diversion. 4.0 mi (6.4 km) upstream from mouth. and 4.0 mi (6.4 km) north of Granby.

DRAINAGE AREA.--134 mi² (347 km²).

PERIOD OF RECORD.--August 1953 to current year.

REVISED RECORDS.--WSP 1563: 1954-55.

GAGE.--Water-stage recorder and 10 ft (3 m) Parshall flume with overflow weirs. Datum of gage is 8.023.64 ft (2.445.605 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Supplementary water-stage recorder and Parshall flume on McQueary ditch 500 ft (150 m) downstream from point of diversion at Willow Creek Dam. Datum of gage is 8.031.68 ft (2.448.056 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good except those for winter period. which are poor. Records show combined flow of creek and McQueary ditch. Flow completely regulated by Willow Creek Reservoir (station 09020700). Diversions above station for irrigation of hay meadows. McQueary ditch diverts at Willow Creek Dam for irrigation below station. Diversion above station from Willow Creek Reservoir by Willow Creek Pump Canal to Lake Granby as part of the Colorado-Big Thompson project (see table below for figures of diversion). Prior to Oct. 1. 1962. records include priming and waste water from pump canal. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions. in acre-feet. by Willow Creek Pump Canal; furnished by Water and Power Resources Service.

AVERAGE DISCHARGE (COMBINED FLOW).--27 years. 29.0 ft³/s (0.821 m³/s). 21.010 acre-ft/yr (25.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge. 867 ft³/s (24.6 m³/s) June 7. 1957. gage height. 4.84 ft (1.475 m); no flow Sept. 17-24. 1963. May 1. 1965. May 2-10. Aug. 16-21. 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge. 399 ft³/s (11.3 m³/s) at 1200 June 6. gage height 4.25 ft (1.295 m); minimum daily. 0.08 ft³/s (0.002 m³/s) May 2-7. 13. 14; Aug. 10.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.4 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | 1.3 | 32 | 49 | 26 | .14 |
| 2 | 8.0 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .08 | 32 | 49 | 26 | .14 |
| 3 | 8.0 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .08 | 39 | 49 | 26 | .14 |
| 4 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .08 | 111 | 49 | 24 | .14 |
| 5 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .08 | 307 | 49 | 20 | .14 |
| 6 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .08 | 378 | 49 | 19 | .14 |
| 7 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .08 | 392 | 49 | 19 | .23 |
| 8 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 392 | 50 | 6.3 | .23 |
| 9 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 356 | 49 | .14 | .23 |
| 10 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 345 | 49 | .08 | .23 |
| 11 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 345 | 49 | .14 | .23 |
| 12 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 346 | 49 | .14 | .23 |
| 13 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .08 | 348 | 49 | .14 | .33 |
| 14 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .08 | 314 | 50 | .23 | .23 |
| 15 | 7.6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 258 | 50 | .23 | .23 |
| 16 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 112 | 44 | .23 | .33 |
| 17 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 49 | 41 | .23 | .33 |
| 18 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 49 | 39 | .14 | .23 |
| 19 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 49 | 37 | .14 | .23 |
| 20 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 49 | 37 | .14 | .33 |
| 21 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 49 | 34 | .14 | .33 |
| 22 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 49 | 31 | .14 | .33 |
| 23 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | .14 | 49 | 28 | .14 | .23 |
| 24 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | 105 | 49 | 26 | .14 | .14 |
| 25 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | 328 | 49 | 26 | .14 | .14 |
| 26 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 6.7 | 208 | 50 | 26 | .14 | .14 |
| 27 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 6.7 | 77 | 50 | 26 | .14 | .14 |
| 28 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 6.7 | 68 | 49 | 26 | .14 | .14 |
| 29 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 6.7 | 83 | 49 | 26 | .14 | .14 |
| 30 | 7.3 | 7.3 | 7.3 | 7.3 | --- | 7.3 | 6.7 | 83 | 49 | 26 | .14 | .14 |
| 31 | 7.3 | --- | 7.3 | 7.3 | --- | 7.3 | --- | 50 | --- | 26 | .14 | --- |
| TOTAL | 229.4 | 219.0 | 226.3 | 226.3 | 211.7 | 226.3 | 208.5 | 1005.90 | 4795 | 1237 | 169.82 | 6.33 |
| MEAN | 7.40 | 7.30 | 7.30 | 7.30 | 7.30 | 7.30 | 6.95 | 32.4 | 160 | 39.9 | 5.48 | .21 |
| MAX | 8.0 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 7.0 | 328 | 392 | 50 | 26 | .33 |
| MIN | 5.4 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 6.7 | .08 | 32 | 26 | .08 | .14 |
| AC-FT | 455 | 434 | 449 | 449 | 420 | 449 | 414 | 2000 | 9510 | 2450 | 337 | 13 |
| a | 0 | 2230 | 0 | 0 | 0 | 0 | 1850 | 19310 | 9790 | 0 | 0 | 1490 |

CAL YR 1979 TOTAL 13134.96 MEAN 36.0 MAX 755 MIN .14 AC-FT 26050
WTR YR 1980 TOTAL 8761.55 MEAN 23.9 MAX 392 MIN .08 AC-FT 17380

NOTE.--NO GAGE-HEIGHT RECORD OCT. 4 TO APR. 27.
a DIVERSIONS. IN ACRE-FEET. BY WILLOW CREEK PUMP CANAL. FURNISHED BY WATER AND POWER RESOURCES SERVICE.

## 09024000 FRASER RIVER NEAR WINTER PARK, CO

LOCATION.--Lat 39°54'00", long 105°46'34", in SE¼ sec.4, T.2 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 500 ft (152 m) downstream from bridge on U.S. Highway 40, 1.1 mi (1.8 km) northwest of Winter Park, 2.0 mi (3.2 km) upstream from Vasquez Creek, 3.5 mi (5.6 km) downstream from point of diversion for Moffat water tunnel, and 3.9 mi (6.3 km) southeast of Fraser.

DRAINAGE AREA.--27.6 mi² (71.5 km²).

PERIOD OF RECORD.--September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Arrow" 1910-23 and as "near West Portal" 1924-39. Records since June 9, 1936, equivalent to earlier records if transmountain diversions are added to flow past station.

REVISED RECORDS.--WSP 929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,906.23 ft (2,714.619 m) Colorado State Highway Datum (levels by U.S. Geological Survey). Sept. 23, 1910, to May 12, 1916, nonrecording gage at trail bridge 0.6 mi (1.0 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station through Berthoud Pass ditch (see elsewhere in this report) and to Moffat water tunnel (not known since 1968). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 820 ft³/s (23.2 m³/s) June 13, 1918, gage height, 2.9 ft (0.88 m); minimum daily determined, 2 ft³/s (0.06 m³/s) Mar. 30, Apr. 9, 1912, Jan 23, 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 312 ft³/s (8.84 m³/s) at 1930 June 11, gage height, 2.39 ft (0.728 m); minimum daily, 3.7 ft³/s (0.10 m³/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.5 | 6.8 | 4.5 | 5.9 | 6.1 | 5.5 | 5.2 | 16 | 123 | 55 | 9.4 | 8.5 |
| 2 | 5.3 | 6.6 | 4.6 | 5.9 | 5.6 | 5.5 | 5.2 | 14 | 123 | 91 | 9.1 | 8.4 |
| 3 | 5.1 | 6.4 | 4.5 | 5.9 | 5.6 | 5.6 | 5.2 | 16 | 132 | 115 | 8.9 | 8.3 |
| 4 | 5.2 | 6.3 | 4.5 | 5.9 | 5.6 | 5.3 | 5.2 | 20 | 147 | 53 | 8.7 | 8.3 |
| 5 | 5.2 | 5.2 | 4.5 | 5.8 | 5.6 | 5.3 | 5.2 | 20 | 171 | 27 | 8.5 | 8.2 |
| 6 | 4.9 | 6.3 | 4.5 | 5.9 | 5.6 | 5.2 | 4.8 | 20 | 177 | 10 | 8.1 | 8.1 |
| 7 | 4.9 | 6.3 | 4.6 | 5.9 | 5.2 | 5.2 | 5.1 | 20 | 198 | 9.1 | 8.1 | 8.1 |
| 8 | 4.8 | 4.9 | 4.8 | 5.9 | 5.2 | 5.1 | 5.1 | 18 | 204 | 11 | 8.4 | 7.9 |
| 9 | 6.1 | 4.8 | 4.7 | 5.9 | 5.2 | 5.1 | 4.9 | 17 | 227 | 9.3 | 8.1 | 7.8 |
| 10 | 6.1 | 5.3 | 5.3 | 5.8 | 5.2 | 5.1 | 4.7 | 18 | 249 | 8.8 | 7.8 | 8.5 |
| 11 | 5.9 | 4.9 | 5.9 | 5.8 | 5.2 | 5.1 | 4.6 | 20 | 263 | 9.8 | 8.1 | 9.3 |
| 12 | 5.4 | 4.9 | 5.9 | 5.8 | 5.2 | 5.1 | 4.9 | 18 | 268 | 10 | 8.7 | 8.0 |
| 13 | 5.3 | 4.8 | 5.9 | 5.8 | 5.2 | 5.1 | 5.2 | 15 | 264 | 9.6 | 8.7 | 7.7 |
| 14 | 5.2 | 4.8 | 5.9 | 5.9 | 5.2 | 5.1 | 5.5 | 13 | 239 | 11 | 8.8 | 7.6 |
| 15 | 5.2 | 4.7 | 5.9 | 5.9 | 5.2 | 5.1 | 5.8 | 14 | 232 | 8.1 | 9.3 | 7.7 |
| 16 | 5.5 | 4.7 | 5.9 | 5.9 | 5.2 | 5.1 | 5.8 | 16 | 193 | 7.5 | 8.9 | 7.7 |
| 17 | 5.5 | 4.7 | 5.9 | 5.8 | 5.2 | 5.1 | 7.7 | 13 | 111 | 8.3 | 8.6 | 4.7 |
| 18 | 6.3 | 4.7 | 5.9 | 5.7 | 5.0 | 5.1 | 8.9 | 13 | 102 | 7.9 | 8.4 | 4.7 |
| 19 | 5.5 | 4.7 | 5.9 | 6.1 | 5.0 | 5.1 | 8.0 | 13 | 77 | 7.4 | 8.3 | 4.3 |
| 20 | 5.4 | 4.9 | 5.9 | 6.1 | 5.0 | 5.1 | 8.9 | 22 | 66 | 7.6 | 8.1 | 4.6 |
| 21 | 5.8 | 5.1 | 5.9 | 6.1 | 5.0 | 5.1 | 11 | 42 | 86 | 6.8 | 7.9 | 4.1 |
| 22 | 5.3 | 4.8 | 5.9 | 6.1 | 5.0 | 5.1 | 13 | 59 | 113 | 7.9 | 8.6 | 3.9 |
| 23 | 5.2 | 5.1 | 5.9 | 6.1 | 5.0 | 5.1 | 15 | 74 | 124 | 7.6 | 9.2 | 3.8 |
| 24 | 5.4 | 4.7 | 5.9 | 6.1 | 5.0 | 5.1 | 13 | 83 | 123 | 8.2 | 10 | 3.8 |
| 25 | 6.1 | 4.7 | 5.9 | 6.1 | 5.0 | 5.1 | 11 | 81 | 115 | 7.9 | 10 | 3.8 |
| 26 | 7.8 | 4.8 | 5.9 | 6.1 | 5.0 | 5.1 | 11 | 73 | 113 | 7.8 | 9.4 | 3.8 |
| 27 | 7.3 | 4.6 | 5.9 | 6.1 | 5.0 | 5.1 | 12 | 85 | 111 | 8.0 | 8.6 | 3.8 |
| 28 | 6.4 | 4.6 | 5.9 | 6.1 | 5.2 | 5.1 | 14 | 107 | 102 | 7.5 | 8.8 | 3.8 |
| 29 | 7.1 | 4.4 | 5.9 | 6.1 | 5.4 | 5.1 | 17 | 107 | 74 | 8.6 | [illegible] | 3.7 |
| 30 | 6.7 | 4.4 | 5.9 | 6.1 | --- | 5.0 | 17 | 109 | 50 | 11 | 8.6 | 3.7 |
| 31 | 6.9 | --- | 5.9 | 6.1 | --- | 4.8 | --- | 125 | --- | 10 | 8.8 | --- |
| TOTAL | 178.3 | 153.9 | 170.4 | 184.7 | 151.9 | 159.6 | 249.9 | 1281 | 4577 | 567.7 | 269.5 | 185.6 |
| MEAN | 5.75 | 5.13 | 5.50 | 5.96 | 5.24 | 5.15 | 8.33 | 41.3 | 153 | 18.3 | 8.69 | 6.19 |
| MAX | 7.8 | 6.8 | 5.9 | 6.1 | 6.1 | 5.6 | 17 | 125 | 268 | 115 | 10 | 8.5 |
| MIN | 4.8 | 4.4 | 4.5 | 5.7 | 5.0 | 4.8 | 4.6 | 13 | 50 | 6.8 | 7.8 | 3.7 |
| AC-FT | 354 | 305 | 338 | 366 | 301 | 317 | 496 | 2540 | 9080 | 1130 | 535 | 368 |

CAL YR 1979 TOTAL 6602.6 MEAN 18.1 MAX 237 MIN 3.9 AC-FT 13100
WTR YR 1980 TOTAL 8129.5 MEAN 22.2 MAX 268 MIN 3.7 AC-FT 16120

## 09025000 VASQUEZ CREEK NEAR WINTER PARK, CO

LOCATION.--Lat 39°55'13", long 105°47'05", in NE¼NW¼ sec.33, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 30 ft (9.1 m) downstream from bridge on U.S. Highway 40, 0.2 mi (0.3 km) upstream from mouth, 2.5 mi (4.0 km) northwest of Winter Park, 2.5 mi (4.0 km) southeast of Fraser, and 4.5 mi (7.2 km) downstream from Moffat water tunnel diversion.

DRAINAGE AREA.--27.8 $mi^2$ (72.0 $km^2$).

PERIOD OF RECORD.--June to August 1907, July to November 1909, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313. Records for June to October 1908, published in WSP 269, are unreliable and should not be used. Published as Vasquez River at lower station, near Fraser 1907-9, and as "near West Portal" 1934-39. Records for May 26, 1937, to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--See PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8,768.48 ft (2,672.633 m) National Geodetic Vertical Datum of 1929. June 1, 1907, to Oct. 31, 1909, nonrecording gage at site 0.8 mi (1.3 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Moffat water tunnel not known since 1959. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 470 $ft^3/s$ (13.3 $m^3/s$) June 10, 1952, gage height, 3.13 ft (0.954 m), from rating curve extended above 340 $ft^3/s$ (9.6 $m^3/s$); no flow at times in 1944, 1946, 1956, 1960, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 350 $ft^3/s$ (9.91 $m^3/s$) at 2100 June 11, gage height, 3.26 ft (0.994 m); minimum daily, 3.1 $ft^3/s$ (0.088 $m^3/s$) Mar. 6-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.9 | 6.0 | 5.5 | 4.0 | 4.0 | 4.0 | 3.5 | 6.9 | 86 | 25 | 7.9 | 11 |
| 2 | 5.6 | 6.0 | 5.4 | 4.0 | 4.0 | 4.0 | 3.5 | 7.0 | 84 | 39 | 8.1 | 11 |
| 3 | 4.6 | 6.0 | 5.5 | 4.0 | 4.0 | 4.0 | 3.5 | 7.9 | 91 | 89 | 9.7 | 9.2 |
| 4 | 3.5 | 6.0 | 5.8 | 4.0 | 3.7 | 3.5 | 3.4 | 9.8 | 109 | 62 | 10 | 9.0 |
| 5 | 5.2 | 6.0 | 5.9 | 4.0 | 3.6 | 3.3 | 3.4 | 11 | 124 | 13 | 11 | 9.4 |
| 6 | 5.8 | 6.0 | 5.8 | 4.0 | 4.0 | 3.1 | 3.4 | 14 | 136 | 12 | 11 | 8.8 |
| 7 | 5.8 | 6.0 | 5.8 | 4.0 | 3.3 | 3.1 | 3.4 | 17 | 135 | 13 | 11 | 8.8 |
| 8 | 5.7 | 6.0 | 5.7 | 4.0 | 3.5 | 3.1 | 3.5 | 17 | 159 | 13 | 11 | 8.3 |
| 9 | 6.2 | 6.0 | 5.7 | 4.0 | 3.5 | 3.1 | 3.8 | 17 | 183 | 12 | 11 | 8.4 |
| 10 | 6.1 | 6.0 | 5.6 | 4.0 | 3.5 | 3.1 | 3.6 | 17 | 206 | 12 | 11 | 9.2 |
| 11 | 6.2 | 6.0 | 5.6 | 4.0 | 3.5 | 3.5 | 3.4 | 20 | 250 | 13 | 11 | 8.9 |
| 12 | 6.1 | 6.0 | 5.4 | 4.0 | 3.5 | 3.5 | 3.7 | 20 | 264 | 46 | 11 | 8.6 |
| 13 | 6.1 | 6.0 | 5.0 | 4.0 | 3.5 | 3.8 | 4.5 | 17 | 264 | 77 | 11 | 8.7 |
| 14 | 6.1 | 6.0 | 4.5 | 4.0 | 3.5 | 3.5 | 3.9 | 16 | 250 | 69 | 11 | 8.8 |
| 15 | 6.3 | 6.0 | 4.5 | 4.0 | 3.5 | 3.3 | 3.9 | 16 | 234 | 39 | 11 | 8.1 |
| 16 | 6.3 | 6.0 | 4.5 | 4.0 | 3.5 | 3.3 | 3.8 | 17 | 165 | 9.5 | 11 | 8.4 |
| 17 | 6.1 | 6.2 | 4.5 | 4.0 | 3.5 | 3.3 | 4.2 | 17 | 104 | 9.7 | 12 | 4.3 |
| 18 | 9.8 | 6.4 | 4.5 | 4.0 | 3.5 | 3.3 | 4.5 | 16 | 83 | 10 | 13 | 4.6 |
| 19 | 13 | 6.4 | 4.5 | 4.0 | 3.5 | 3.3 | 4.9 | 19 | 27 | 10 | 12 | 4.5 |
| 20 | 7.0 | 6.4 | 4.5 | 4.0 | 3.3 | 3.3 | 5.3 | 21 | 42 | 9.6 | 12 | 5.1 |
| 21 | 7.2 | 6.4 | 4.5 | 4.0 | 3.3 | 3.3 | 6.4 | 30 | 45 | 8.5 | 12 | 4.7 |
| 22 | 6.7 | 6.4 | 4.5 | 4.0 | 3.3 | 3.3 | 7.2 | 47 | 50 | 8.4 | 11 | 4.6 |
| 23 | 6.9 | 6.4 | 4.5 | 4.0 | 3.3 | 3.3 | 7.5 | 75 | 81 | 8.6 | 11 | 4.8 |
| 24 | 6.4 | 6.4 | 4.5 | 4.0 | 3.3 | 3.3 | 6.1 | 93 | 83 | 9.7 | 12 | 4.8 |
| 25 | 6.2 | 6.4 | 4.5 | 4.0 | 3.4 | 3.3 | 5.2 | 86 | 81 | 9.8 | 12 | 4.8 |
| 26 | 6.4 | 6.1 | 4.0 | 4.0 | 3.6 | 3.3 | 5.3 | 73 | 79 | 9.6 | 12 | 4.8 |
| 27 | 6.4 | 5.8 | 4.0 | 4.0 | 3.7 | 3.3 | 6.0 | 72 | 51 | 8.0 | 11 | 4.8 |
| 28 | 5.9 | 5.8 | 4.0 | 4.0 | 3.8 | 3.3 | 6.8 | 84 | 44 | 7.8 | 11 | 5.3 |
| 29 | 6.0 | 5.6 | 4.0 | 4.0 | 3.9 | 3.3 | 7.6 | 84 | 34 | 8.3 | 11 | 5.1 |
| 30 | 6.7 | 5.6 | 4.0 | 4.0 | --- | 3.3 | 8.0 | 79 | 32 | 7.8 | 10 | 5.2 |
| 31 | 6.2 | --- | 4.0 | 4.0 | --- | 3.3 | --- | 86 | --- | 8.1 | 10 | --- |
| TOTAL | 198.4 | 182.3 | 150.7 | 124.0 | 103.5 | 104.7 | 143.2 | 1112.6 | 3576 | 677.4 | 339.7 | 212.0 |
| MEAN | 6.40 | 6.08 | 4.86 | 4.00 | 3.57 | 3.38 | 4.77 | 35.9 | 119 | 21.9 | 11.0 | 7.07 |
| MAX | 13 | 6.4 | 5.9 | 4.0 | 4.0 | 4.0 | 8.0 | 93 | 264 | 89 | 13 | 11 |
| MIN | 3.5 | 5.6 | 4.0 | 4.0 | 3.3 | 3.1 | 3.4 | 6.9 | 27 | 7.8 | 7.9 | 4.3 |
| AC-FT | 394 | 362 | 299 | 246 | 205 | 208 | 284 | 2210 | 7090 | 1340 | 674 | 421 |

CAL YR 1979 TOTAL 3994.9 MEAN 10.9 MAX 175 MIN 3.4 AC-FT 7920
WTR YR 1980 TOTAL 6924.5 MEAN 18.9 MAX 264 MIN 3.1 AC-FT 13730

NOTE.--NO GAGE-HEIGHT RECORD DEC. 10 TO JAN. 24.

## 09025400 ELK CREEK NEAR FRASER, CO

LOCATION.--Lat 39°55'09", long 105°49'31", in SE¼NW¼ sec.31, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 100 ft (30 m) upstream from unnamed tributary 1,150 ft (350 m) downstream from West Elk Creek, 2.0 mi (3.2 km) southwest of Fraser, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--7.15 mi² (18.52 km²).

PERIOD OF RECORD.--September 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,805 ft (2,684 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Transmountain diversions above station to Moffat water tunnel. Diversions for irrigation of about 100 acres (405,000 m²) of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88 ft³/s (2.49 m³/s) May 8, 1974, gage height, 2.67 ft (0.814 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Jan. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge observed, 56 ft³/s (1.59 m³/s) at 2200 May 24, gage height, 2.47 ft (0.753 m); minimum daily, 0.31 ft³/s (0.009 m³/s) Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .63 | 1.0 | .58 | .37 | .34 | .35 | .36 | 1.2 | 28 | 15 | 1.6 | .84 |
| 2 | .64 | 1.0 | .58 | .37 | .34 | .35 | .36 | 1.3 | 27 | 14 | 1.6 | .75 |
| 3 | .64 | .84 | .54 | .37 | .34 | .35 | .36 | 1.5 | 27 | 12 | 1.4 | .70 |
| 4 | .63 | .62 | .52 | .37 | .34 | .35 | .36 | 1.8 | 28 | 10 | 1.4 | .70 |
| 5 | .64 | .58 | .52 | .37 | .34 | .35 | .36 | 2.4 | 30 | 8.7 | 1.3 | .75 |
| 6 | .64 | .55 | .52 | .37 | .34 | .37 | .36 | 2.9 | 30 | 7.8 | 1.3 | .75 |
| 7 | .63 | .52 | .52 | .37 | .33 | .38 | .36 | 3.3 | 28 | 7.0 | 1.3 | .75 |
| 8 | .63 | .55 | .52 | .37 | .32 | .39 | .36 | 3.6 | 28 | 6.2 | 1.2 | .82 |
| 9 | .63 | .54 | .52 | .37 | .32 | .40 | .36 | 3.4 | 28 | 5.5 | 1.0 | 1.1 |
| 10 | .63 | .52 | .53 | .37 | .32 | .40 | .36 | 3.3 | 28 | 5.1 | .98 | .89 |
| 11 | .66 | .51 | .52 | .37 | .32 | .40 | .36 | 3.5 | 28 | 5.8 | .92 | 1.1 |
| 12 | .66 | .49 | .52 | .37 | .32 | .40 | .36 | 3.4 | 28 | 7.1 | .92 | .85 |
| 13 | .65 | .56 | .52 | .37 | .32 | .40 | .36 | 3.1 | 28 | 6.8 | .92 | .80 |
| 14 | .66 | .55 | .52 | .37 | .32 | .40 | .38 | 2.9 | 26 | 5.7 | .96 | .75 |
| 15 | .65 | .56 | .48 | .37 | .32 | .40 | .40 | 3.0 | 24 | 5.1 | 1.1 | .75 |
| 16 | .67 | .56 | .45 | .37 | .32 | .40 | .42 | 3.2 | 22 | 4.5 | 1.1 | .75 |
| 17 | .69 | .56 | .45 | .32 | .32 | .40 | .45 | 3.0 | 21 | 4.0 | 1.1 | .74 |
| 18 | .66 | .56 | .45 | .32 | .32 | .40 | .52 | 3.0 | 22 | 3.7 | .99 | .70 |
| 19 | .70 | .56 | .45 | .32 | .32 | .40 | .58 | 3.3 | 22 | 3.5 | .85 | .70 |
| 20 | .71 | .56 | .45 | .32 | .31 | .39 | .66 | 4.2 | 21 | 3.3 | .85 | .74 |
| 21 | .75 | .56 | .45 | .32 | .32 | .38 | .74 | 12 | 21 | 3.0 | .80 | .72 |
| 22 | .74 | .56 | .45 | .34 | .32 | .38 | .90 | 20 | 21 | 2.8 | .80 | .70 |
| 23 | .74 | .56 | .45 | .34 | .32 | .38 | 1.1 | 33 | 20 | 2.6 | .80 | .63 |
| 24 | .74 | .56 | .42 | .34 | .32 | .38 | .92 | 45 | 20 | 2.5 | .88 | .62 |
| 25 | .76 | .58 | .40 | .34 | .32 | .38 | .88 | 42 | 19 | 2.4 | 1.2 | .62 |
| 26 | .77 | .58 | .40 | .34 | .32 | .38 | .72 | 33 | 19 | 2.5 | 1.4 | .62 |
| 27 | .75 | .58 | .40 | .34 | .32 | .37 | .94 | 31 | 18 | 2.1 | 1.0 | .62 |
| 28 | .96 | .58 | .40 | .34 | .33 | .36 | 1.1 | 34 | 16 | 1.9 | .90 | .62 |
| 29 | 1.0 | .58 | .40 | .34 | .34 | .36 | 1.3 | 33 | 15 | .99 | .85 | .62 |
| 30 | 1.1 | .58 | .37 | .34 | --- | .36 | 1.2 | 30 | 14 | 1.8 | .80 | .62 |
| 31 | 1.0 | --- | .37 | .34 | --- | .36 | --- | 30 | --- | 1.7 | .88 | --- |
| TOTAL | 22.36 | 17.91 | 14.67 | 10.92 | 9.43 | 11.77 | 17.89 | 400.3 | 707 | 165.09 | 33.10 | 22.32 |
| MEAN | .72 | .60 | .47 | .35 | .33 | .38 | .60 | 12.9 | 23.6 | 5.33 | 1.07 | .74 |
| MAX | 1.1 | 1.0 | .58 | .37 | .34 | .40 | 1.3 | 45 | 30 | 15 | 1.6 | 1.1 |
| MIN | .63 | .49 | .37 | .32 | .31 | .35 | .36 | 1.2 | 14 | .99 | .80 | .62 |
| AC-FT | 44 | 36 | 29 | 22 | 19 | 23 | 35 | 794 | 1400 | 327 | 66 | 44 |

CAL YR 1979 TOTAL 1028.63 MEAN 2.82 MAX 27 MIN .37 AC-FT 2040
WTR YR 1980 TOTAL 1432.76 MEAN 3.91 MAX 45 MIN .31 AC-FT 2840

NOTE.--NO GAGE-HEIGHT RECORD DEC. 15 TO MAY 23.

## 09026500 ST. LOUIS CREEK NEAR FRASER, CO

LOCATION.--Lat 39°54'36", long 105°52'40", in SE¼SW¼ sec.34, T.1 S., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 300 ft (91 m) downstream from West St. Louis Creek and 4.1 mi (6.6 km) southwest of Fraser.

DRAINAGE AREA.--32.9 mi² (85.2 km²).

PERIOD OF RECORD.--October 1933 to current year. Prior to August 1934, monthly discharge only, published in WSP 1313. Records for May 1956 to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,980.17 ft (2,737.156 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Moffat water tunnel not known since 1959. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 470 ft³/s (13.3 m³/s) June 15, 1952, gage height, 2.89 ft (0.881 m); maximum gage height, 3.21 ft (0.978 m) June 10, 1952 (backwater from log on control); minimum discharge not determined, probably occurred during January or February 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 226 ft³/s (6.40 m³/s) at 2000 June 12, gage height, 2.28 ft (0.695 m); maximum gage height, 2.33 ft (0.710 m) Apr. 30 (backwater from ice); minimum daily discharge, 4.1 ft³/s (0.12 m³/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | 6.8 | 6.2 | 6.0 | 5.6 | 5.4 | 5.4 | 14 | 70 | 77 | 18 | 12 |
| 2 | 10 | 6.6 | 6.2 | 5.8 | 5.1 | 5.2 | 5.4 | 12 | 72 | 102 | 18 | 12 |
| 3 | 9.8 | 6.4 | 6.2 | 5.6 | 4.7 | 5.2 | 5.4 | 13 | 79 | 153 | 17 | 12 |
| 4 | 9.7 | 6.2 | 6.2 | 5.6 | 4.3 | 5.2 | 5.6 | 14 | 90 | 135 | 17 | 11 |
| 5 | 10 | 6.1 | 6.3 | 5.5 | 4.2 | 5.2 | 5.8 | 15 | 103 | 76 | 17 | 11 |
| 6 | 9.3 | 6.0 | 6.3 | 5.7 | 4.1 | 5.2 | 5.8 | 16 | 123 | 42 | 16 | 11 |
| 7 | 8.2 | 6.1 | 6.2 | 5.8 | 4.2 | 5.2 | 5.8 | 20 | 135 | 29 | 17 | 11 |
| 8 | 8.0 | 6.0 | 6.1 | 5.8 | 4.5 | 5.2 | 5.8 | 19 | 139 | 28 | 17 | 15 |
| 9 | 7.6 | 5.9 | 6.1 | 5.8 | 4.8 | 5.2 | 5.8 | 18 | 156 | 28 | 17 | 17 |
| 10 | 7.8 | 5.7 | 6.2 | 5.8 | 5.1 | 5.4 | 5.8 | 19 | 165 | 30 | 16 | 14 |
| 11 | 7.7 | 5.7 | 6.4 | 5.8 | 5.2 | 5.4 | 5.8 | 22 | 171 | 49 | 15 | 15 |
| 12 | 7.6 | 5.7 | 6.5 | 5.8 | 5.2 | 5.4 | 5.6 | 23 | 191 | 77 | 15 | 12 |
| 13 | 7.6 | 5.9 | 6.6 | 5.8 | 5.2 | 5.2 | 5.8 | 18 | 194 | 68 | 15 | 12 |
| 14 | 7.9 | 6.1 | 6.8 | 5.8 | 5.2 | 5.2 | 6.0 | 16 | 192 | 61 | 17 | 11 |
| 15 | 7.9 | 6.4 | 6.9 | 5.7 | 5.4 | 5.4 | 6.2 | 16 | 179 | 48 | 21 | 10 |
| 16 | 8.4 | 6.6 | 6.8 | 5.6 | 5.4 | 5.6 | 6.2 | 16 | 160 | 39 | 18 | 11 |
| 17 | 8.4 | 7.2 | 6.5 | 5.6 | 5.4 | 5.6 | 6.2 | 16 | 118 | 30 | 16 | 8.8 |
| 18 | 9.5 | 7.4 | 6.4 | 5.6 | 5.4 | 5.6 | 6.4 | 15 | 90 | 29 | 14 | 8.5 |
| 19 | 11 | 6.4 | 6.6 | 5.8 | 5.4 | 5.6 | 6.8 | 18 | 84 | 28 | 14 | 8.4 |
| 20 | 9.3 | 5.9 | 6.7 | 6.0 | 5.2 | 5.6 | 7.4 | 21 | 73 | 29 | 14 | 9.7 |
| 21 | 9.2 | 5.8 | 6.7 | 6.2 | 5.2 | 5.6 | 9.0 | 28 | 66 | 29 | 14 | 8.9 |
| 22 | 8.6 | 5.7 | 6.6 | 6.0 | 5.2 | 5.6 | 11 | 46 | 83 | 28 | 13 | 8.5 |
| 23 | 8.4 | 5.7 | 6.2 | 5.4 | 5.2 | 5.6 | 14 | 60 | 92 | 28 | 13 | 8.2 |
| 24 | 8.2 | 5.9 | 6.2 | 4.7 | 5.2 | 5.6 | 13 | 65 | 125 | 30 | 15 | 8.3 |
| 25 | 8.0 | 6.0 | 6.0 | 4.7 | 5.2 | 5.4 | 11 | 63 | 112 | 29 | 18 | 7.7 |
| 26 | 7.8 | 6.1 | 5.8 | 4.7 | 5.2 | 5.4 | 9.4 | 57 | 107 | 29 | 18 | 6.8 |
| 27 | 7.6 | 6.1 | 5.8 | 4.7 | 5.2 | 5.4 | 9.6 | 56 | 90 | 26 | 14 | 8.0 |
| 28 | 7.4 | 6.1 | 5.8 | 4.7 | 5.4 | 5.4 | 11 | 65 | 80 | 24 | 13 | 7.5 |
| 29 | 7.2 | 6.1 | 5.8 | 4.5 | 5.4 | 5.4 | 13 | 66 | 75 | 20 | 12 | 6.4 |
| 30 | 7.1 | 6.2 | 5.7 | 4.6 | --- | 5.4 | 15 | 61 | 75 | 20 | 12 | 6.0 |
| 31 | 6.9 | --- | 5.9 | 5.2 | --- | 5.4 | --- | 67 | --- | 18 | 14 | --- |
| TOTAL | 262.1 | 184.8 | 194.7 | 170.3 | 146.8 | 167.2 | 235.0 | 975 | 3489 | 1439 | 485 | 308.7 |
| MEAN | 8.45 | 6.16 | 6.28 | 5.49 | 5.06 | 5.39 | 7.83 | 31.5 | 116 | 46.4 | 15.6 | 10.3 |
| MAX | 11 | 7.4 | 6.9 | 6.2 | 5.6 | 5.6 | 15 | 67 | 194 | 153 | 21 | 17 |
| MIN | 6.9 | 5.7 | 5.7 | 4.5 | 4.1 | 5.2 | 5.4 | 12 | 66 | 18 | 12 | 6.0 |
| AC-FT | 520 | 367 | 386 | 338 | 291 | 332 | 466 | 1930 | 6920 | 2850 | 962 | 612 |

CAL YR 1979 TOTAL 8459.6 MEAN 23.2 MAX 191 MIN 4.3 AC-FT 16780
WTR YR 1980 TOTAL 8057.6 MEAN 22.0 MAX 194 MIN 4.1 AC-FT 15980

## 09032000 RANCH CREEK NEAR FRASER, CO

LOCATION.--Lat 39°57'00", long 105°45'54", in NW¼NE¼ sec.22, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 450 ft (137 m) downstream from Middle Fork and 2.7 mi (4.3 km) east of Fraser.

DRAINAGE AREA.--19.9 mi² (51.5 km²).

PERIOD OF RECORD.--August 1934 to current year. Records since May 15, 1949, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--WSP 1243: 1935.

GAGE.--Water-stage recorder. Altitude of gage is 8,685 ft (2,647 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Diversion above station for irrigation of hay meadows along Fraser River. Transmountain diversion above station to Moffat water tunnel (not furnished by Colorado Division of Water Resources). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 402 ft³/s (11.2 m³/s) June 28, 1957, gage height, 3.72 ft (1.134 m); minimum daily, 0.4 ft³/s (0.011 m³/s) Sept. 21, Oct. 6, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 239 ft³/s (6.77 m³/s) at 2100 June 12, gage height, 3.13 ft (0.954 m); minimum daily, 2.4 ft³/s (0.068 m³/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | 5.0 | 5.0 | 3.1 | 2.9 | 2.7 | 2.5 | 7.8 | 83 | 56 | 5.4 | 5.2 |
| 2 | 2.6 | 5.3 | 5.0 | 2.9 | 2.9 | 2.7 | 2.5 | 7.5 | 82 | 61 | 5.9 | 4.8 |
| 3 | 2.7 | 5.6 | 5.0 | 2.9 | 2.9 | 2.7 | 2.5 | 9.4 | 87 | 87 | 6.2 | 4.6 |
| 4 | 2.7 | 6.0 | 4.8 | 2.9 | 2.9 | 2.7 | 2.5 | 11 | 100 | 70 | 6.3 | 4.4 |
| 5 | 2.7 | 6.0 | 4.2 | 2.9 | 2.8 | 2.7 | 2.5 | 14 | 118 | 48 | 6.2 | 4.3 |
| 6 | 2.7 | 6.0 | 3.2 | 2.9 | 2.8 | 2.7 | 2.5 | 16 | 134 | 34 | 6.1 | 4.6 |
| 7 | 2.7 | 5.0 | 3.2 | 2.8 | 2.8 | 2.8 | 2.5 | 19 | 141 | 23 | 5.8 | 4.6 |
| 8 | 2.7 | 5.2 | 3.2 | 2.9 | 2.8 | 2.8 | 2.5 | 20 | 150 | 12 | 6.7 | 5.0 |
| 9 | 2.7 | 5.1 | 3.1 | 2.9 | 2.8 | 2.8 | 2.5 | 19 | 162 | 8.6 | 7.0 | 5.3 |
| 10 | 2.7 | 5.2 | 3.2 | 2.9 | 2.8 | 2.8 | 2.5 | 18 | 187 | 7.8 | 6.4 | 6.6 |
| 11 | 2.7 | 5.2 | 3.2 | 2.9 | 2.8 | 2.8 | 2.5 | 19 | 214 | 6.1 | 6.4 | 8.8 |
| 12 | 2.7 | 5.2 | 3.1 | 2.9 | 2.8 | 2.8 | 2.5 | 19 | 209 | 8.2 | 5.7 | 6.2 |
| 13 | 2.7 | 5.1 | 3.1 | 3.0 | 2.8 | 2.8 | 2.5 | 17 | 206 | 6.7 | 5.7 | 5.9 |
| 14 | 2.7 | 5.0 | 3.1 | 2.9 | 2.8 | 2.8 | 2.7 | 15 | 201 | 5.8 | 6.0 | 5.4 |
| 15 | 2.7 | 5.1 | 3.1 | 2.9 | 2.7 | 2.8 | 2.8 | 15 | 188 | 5.6 | 7.4 | 5.2 |
| 16 | 3.0 | 4.3 | 3.2 | 2.9 | 2.7 | 2.8 | 3.0 | 17 | 177 | 5.2 | 6.5 | 5.4 |
| 17 | 3.2 | 6.3 | 3.2 | 2.9 | 2.5 | 2.8 | 3.0 | 16 | 170 | 6.0 | 5.8 | 4.5 |
| 18 | 3.3 | 6.4 | 3.1 | 2.9 | 2.5 | 2.8 | 3.5 | 15 | 146 | 3.6 | 5.3 | 2.4 |
| 19 | 3.1 | 5.8 | 3.1 | 3.1 | 2.7 | 2.8 | 4.2 | 16 | 75 | 4.6 | 5.1 | 3.2 |
| 20 | 3.1 | 5.3 | 3.1 | 3.1 | 2.7 | 2.7 | 4.6 | 18 | 72 | 4.9 | 5.0 | 5.0 |
| 21 | 3.1 | 5.3 | 3.1 | 3.1 | 2.7 | 2.7 | 5.4 | 26 | 71 | 4.8 | 4.7 | 3.9 |
| 22 | 3.2 | 5.2 | 3.1 | 3.1 | 2.7 | 2.7 | 6.6 | 45 | 71 | 4.7 | 4.5 | 3.4 |
| 23 | 3.3 | 5.0 | 3.1 | 3.1 | 2.7 | 2.7 | 8.1 | 54 | 84 | 4.6 | 5.2 | 3.5 |
| 24 | 3.4 | 5.0 | 3.1 | 2.9 | 2.7 | 2.7 | 6.3 | 63 | 85 | 4.4 | 7.5 | 3.5 |
| 25 | 3.5 | 5.0 | 3.0 | 2.9 | 2.7 | 2.7 | 4.8 | 64 | 71 | 5.5 | 11 | 3.3 |
| 26 | 3.6 | 5.0 | 2.9 | 2.9 | 2.7 | 2.7 | 4.7 | 58 | 66 | 7.8 | 11 | 3.3 |
| 27 | 3.8 | 5.2 | 3.1 | 2.9 | 2.7 | 2.5 | 5.9 | 57 | 64 | 7.2 | 5.7 | 3.2 |
| 28 | 4.0 | 5.1 | 3.1 | 2.9 | 2.7 | 2.5 | 7.2 | 61 | 59 | 5.4 | 4.8 | 3.1 |
| 29 | 4.2 | 5.1 | 3.1 | 2.9 | 2.7 | 2.5 | 8.2 | 64 | 56 | 5.3 | 4.4 | 2.8 |
| 30 | 4.5 | 5.0 | 3.1 | 2.9 | --- | 2.5 | 8.6 | 68 | 56 | 5.7 | 5.0 | 3.0 |
| 31 | 4.8 | --- | 3.1 | 2.9 | --- | 2.5 | --- | 81 | --- | 5.5 | 5.8 | --- |
| TOTAL | 97.3 | 159.0 | 105.0 | 91.1 | 79.7 | 84.0 | 122.1 | 949.7 | 3585 | 525.0 | 190.5 | 134.4 |
| MEAN | 3.14 | 5.30 | 3.39 | 2.94 | 2.75 | 2.71 | 4.07 | 30.6 | 120 | 16.9 | 6.15 | 4.48 |
| MAX | 4.8 | 6.4 | 5.0 | 3.1 | 2.9 | 2.8 | 8.6 | 81 | 214 | 87 | 11 | 8.8 |
| MIN | 2.5 | 4.3 | 2.9 | 2.8 | 2.5 | 2.5 | 2.5 | 7.5 | 56 | 3.6 | 4.4 | 2.4 |
| AC-FT | 193 | 315 | 208 | 181 | 158 | 167 | 242 | 1880 | 7110 | 1040 | 378 | 267 |

CAL YR 1979 TOTAL 5732.8 MEAN 15.7 MAX 202 MIN 1.5 AC-FT 11370
WTR YR 1980 TOTAL 6122.8 MEAN 16.7 MAX 214 MIN 2.4 AC-FT 12140

## 09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO

LOCATION.--Lat 40°05'00", long 106°05'15", in NE¼NE¼ sec.2, T.1 N., R.78 W., Grand County, Hydrologic Unit 14010001, on left bank about 1,000 ft (300 m) north of U.S. Highway 40, 1 mi (1.6 km) northeast of Hot Sulphur Springs, and 4.5 mi (7.2 km) upstream from Beaver Creek.

DRAINAGE AREA.--825 mi² (2,137 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1904 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to 1907 and 1914-18, published as Grand River at Hot Sulphur Springs, and as Grand River at Sulphur Springs 1907-13.

REVISED RECORDS.--WSP 1313: 1905. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,670 ft (2,338 m), from railroad elevations. July 28, 1904, to Apr. 16, 1906, nonrecording gage on bridge 1.7 mi (2.7 km) downstream at different datum. Apr. 17, 1906, to Sept. 18, 1930, nonrecording gage at bridge 1.4 mi (2.3 km) downstream at datum 7,651.26 ft (2,332.104 m) National Geodetic Vertical Datum of 1929. Supplemental water-stage recorder (nonrecording gage prior to Jan. 1, 1963) at different datum at site 1.7 mi (2.7 km) downstream, used for winter records some years.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Flow affected by transmountain diversions, storage reservoirs, and diversions above station for irrigation of about 13,000 acres (52.6 km²).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 10,300 ft³/s (292 m³/s) June 15, 1921, gage height, 8.7 ft (2.55 m), site and datum then in use; minimum daily, 33 ft³/s (0.93 m³/s) Sept. 27, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,810 ft³/s (51.3 m³/s) at 1000 June 12, gage height, 2.73 ft (0.832 m); minimum daily, 58 ft³/s (1.64 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 58 | 76 | 66 | 74 | 70 | 70 | 74 | 449 | 864 | 602 | 190 | 101 |
| 2 | 66 | 76 | 66 | 74 | 70 | 70 | 80 | 427 | 828 | 703 | 167 | 93 |
| 3 | 66 | 76 | 70 | 74 | 70 | 70 | 80 | 483 | 824 | 854 | 159 | 75 |
| 4 | 64 | 76 | 70 | 74 | 70 | 70 | 90 | 512 | 933 | 780 | 157 | 72 |
| 5 | 64 | 76 | 70 | 74 | 70 | 72 | 80 | 540 | 1240 | 568 | 142 | 72 |
| 6 | 65 | 74 | 70 | 74 | 70 | 72 | 80 | 550 | 1430 | 468 | 131 | 70 |
| 7 | 66 | 73 | 70 | 74 | 70 | 70 | 80 | 698 | 1450 | 427 | 124 | 69 |
| 8 | 66 | 81 | 70 | 74 | 60 | 69 | 80 | 725 | 1460 | 412 | 125 | 76 |
| 9 | 66 | 72 | 70 | 74 | 60 | 70 | 80 | 618 | 1520 | 366 | 122 | 101 |
| 10 | 66 | 80 | 70 | 74 | 60 | 69 | 80 | 558 | 1540 | 347 | 115 | 90 |
| 11 | 67 | 79 | 70 | 74 | 64 | 69 | 80 | 553 | 1650 | 335 | 113 | 97 |
| 12 | 68 | 74 | 70 | 74 | 66 | 72 | 80 | 610 | 1700 | 484 | 108 | 86 |
| 13 | 68 | 72 | 70 | 74 | 70 | 70 | 84 | 640 | 1700 | 550 | 109 | 81 |
| 14 | 68 | 72 | 70 | 74 | 70 | 70 | 90 | 640 | 1630 | 498 | 112 | 77 |
| 15 | 69 | 72 | 70 | 74 | 70 | 70 | 94 | 640 | 1530 | 405 | 146 | 72 |
| 16 | 72 | 72 | 74 | 74 | 70 | 70 | 98 | 640 | 1340 | 281 | 137 | 73 |
| 17 | 74 | 72 | 74 | 74 | 70 | 70 | 102 | 640 | 959 | 252 | 122 | 70 |
| 18 | 76 | 72 | 74 | 74 | 70 | 70 | 109 | 640 | 854 | 238 | 112 | 64 |
| 19 | 79 | 72 | 74 | 74 | 70 | 70 | 128 | 640 | 726 | 218 | 106 | 61 |
| 20 | 81 | 72 | 74 | 74 | 70 | 70 | 168 | 700 | 661 | 210 | 105 | 74 |
| 21 | 84 | 72 | 74 | 74 | 70 | 70 | 203 | 760 | 609 | 205 | 103 | 77 |
| 22 | 81 | 72 | 74 | 74 | 70 | 70 | 263 | 820 | 643 | 191 | 100 | 68 |
| 23 | 79 | 72 | 74 | 70 | 70 | 70 | 354 | 900 | 670 | 187 | 99 | 64 |
| 24 | 80 | 72 | 74 | 70 | 70 | 70 | 457 | 991 | 743 | 184 | 101 | 60 |
| 25 | 81 | 72 | 74 | 70 | 70 | 70 | 373 | 1320 | 707 | 203 | 121 | 63 |
| 26 | 81 | 72 | 74 | 70 | 70 | 70 | 374 | 1140 | 699 | 225 | 148 | 65 |
| 27 | 81 | 70 | 74 | 70 | 70 | 70 | 359 | 879 | 653 | 216 | 118 | 61 |
| 28 | 78 | 66 | 74 | 70 | 70 | 70 | 416 | 852 | 608 | 201 | 107 | 59 |
| 29 | 77 | 66 | 74 | 70 | 70 | 70 | 474 | 918 | 549 | 187 | 101 | 59 |
| 30 | 79 | 66 | 74 | 70 | --- | 70 | 497 | 876 | 529 | 194 | 99 | 59 |
| 31 | 82 | --- | 74 | 70 | --- | 70 | --- | 901 | --- | 197 | 104 | --- |
| TOTAL | 2252 | 2189 | 2226 | 2258 | 1990 | 2173 | 5597 | 22260 | 31249 | 11188 | 3803 | 2209 |
| MEAN | 72.6 | 73.0 | 71.8 | 72.8 | 68.6 | 70.1 | 187 | 718 | 1042 | 361 | 123 | 73.6 |
| MAX | 84 | 81 | 74 | 74 | 70 | 72 | 497 | 1320 | 1700 | 854 | 190 | 101 |
| MIN | 58 | 66 | 66 | 70 | 60 | 69 | 74 | 427 | 529 | 184 | 99 | 59 |
| AC-FT | 4470 | 4340 | 4420 | 4480 | 3950 | 4310 | 11100 | 44150 | 61980 | 22190 | 7540 | 4380 |

CAL YR 1979 TOTAL 86009 MEAN 236 MAX 1480 MIN 54 AC-FT 170600
WTR YR 1980 TOTAL 89394 MEAN 244 MAX 1700 MIN 58 AC-FT 177300

NOTE.--NO GAGE-HEIGHT RECORD DEC. 18 TO MAR. 5, MAR. 8 TO APR. 15.

### 09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1947 to current year.
WATER TEMPERATURE: April 1949 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 400 micromhos Feb. 5, 1974; minimum daily, 48 micromhos June 2, 1947.
WATER TEMPERATURES: Maximum, 28°C July 17, 1971; minimum, freezing point on many days during winter months each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 180 micromhos September 26, 27; minimum daily, 60 micromhos June 10.
WATER TEMPERATURES: Maximum daily, 23.0°C Aug. 28; minimum daily, 0.0°C many days during December to April.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | OXYGEN, DISSOLVED (MG/L) | NITROGEN, DISSOLVED (MG/L AS N) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>19... | 0850 | 54 | 140 | 7.8 | 6.0 | 9.4 | .60 | 52 | 0 | 16 | 3.0 | 6.5 |
| JAN<br>31... | 1130 | 68 | 120 | 7.9 | .0 | 8.6 | 1.1 | 52 | 0 | 16 | 3.0 | 7.3 |
| JUN<br>05... | 1130 | 1210 | 70 | 7.8 | 10.0 | 9.0 | .41 | 27 | 0 | 7.8 | 1.8 | 3.2 |
| JUL<br>15... | 1510 | 370 | 125 | 8.8 | 19.0 | 9.0 | .61 | 56 | 0 | 18 | 2.8 | 5.5 |

### 09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS. CO--Continued

### WATER-QUALITY DATA. WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | SODIUM ADSORPTION RATIO | POTASSIUM. DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE. DISSOLVED (MG/L AS CL) | FLUORIDE. DISSOLVED (MG/L AS F) | SILICA. DISSOLVED (MG/L AS SIO2) | SOLIDS. SUM OF CONSTITUENTS. DISSOLVED (MG/L) | SOLIDS. DISSOLVED (TONS PER AC-FT) | SOLIDS. DISSOLVED (TONS PER DAY) | NITROGEN. NO2+NO3 TOTAL (MG/L AS N) | NITROGEN. NO2+NO3 DISSOLVED (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 19... | .4 | 1.4 | 55 | 11 | 1.4 | .3 | 12 | 85 | .12 | 12.5 | .00 | .05 |
| JAN 31... | .4 | 1.3 | 55 | 5.7 | 1.6 | .3 | 15 | 86 | .12 | 15.8 | .25 | .55 |
| JUN 05... | .3 | .9 | 27 | 5.8 | .9 | .2 | 10 | 47 | .06 | 154 | .04 | .06 |
| JUL 15... | .3 | 1.1 | 61 | 1.8 | .6 | .3 | 13 | 80 | .11 | 79.9 | .00 | .00 |

| DATE | NITROGEN.AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN.AMMONIA + ORGANIC DIS. (MG/L AS N) | NITROGEN. TOTAL (MG/L AS N) | PHOSPHORUS. TOTAL (MG/L AS P) | PHOSPHORUS. DISSOLVED (MG/L AS P) | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DISSOLVED (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM. TOTAL RECOVERABLE (UG/L AS CR) | CHROMIUM. DISSOLVED (UG/L AS CR) | COPPER. TOTAL RECOVERABLE (UG/L AS CU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 19... | .55 | .55 | .55 | .030 | .020 | 1 | 2 | 0 | <1 | 3 | 0 | 0 |
| JAN 31... | .55 | .56 | .80 | .130 | .070 | 0 | 1 | 0 | 3 | 0 | 1 | 2 |
| JUN 05... | 2.5 | .35 | 2.5 | .070 | .030 | 2 | 1 | 0 | <1 | 4 | 0 | 4 |
| JUL 15... | .88 | .61 | .88 | .050 | .040 | 2 | 2 | 0 | 2 | 5 | 0 | 8 |

| DATE | COPPER. DISSOLVED (UG/L AS CU) | IRON. DISSOLVED (UG/L AS FE) | LEAD. TOTAL RECOVERABLE (UG/L AS PB) | LEAD. DISSOLVED (UG/L AS PB) | MANGANESE. DISSOLVED (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MERCURY DISSOLVED (UG/L AS HG) | SELENIUM. TOTAL (UG/L AS SE) | SELENIUM. DISSOLVED (UG/L AS SE) | ZINC. TOTAL RECOVERABLE (UG/L AS ZN) | ZINC. DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 19... | 0 | 140 | 4 | 0 | 20 | .0 | .0 | 0 | 0 | 0 | <3 |
| JAN 31... | 0 | 110 | 3 | 43 | 30 | .0 | .1 | 0 | 0 | 30 | 30 |
| JUN 05... | 2 | 150 | 1 | 1 | 20 | .0 | .0 | 0 | 0 | 20 | <3 |
| JUL 15... | 1 | 190 | 6 | 0 | 20 | .0 | .0 | 0 | 0 | 20 | <3 |

## 09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 160 | 130 | 120 | 130 | 130 | 140 | 140 | 140 | 80 | 100 | 130 | 150 |
| 2 | 160 | 130 | 130 | 130 | 130 | 140 | 140 | 130 | 75 | 120 | 130 | 120 |
| 3 | 160 | 120 | --- | 120 | 130 | 140 | 140 | 120 | 70 | 100 | 140 | 140 |
| 4 | 160 | 120 | 125 | 130 | 130 | 140 | 130 | 120 | 70 | 100 | 140 | 160 |
| 5 | 160 | 120 | --- | 130 | 140 | 130 | 130 | 130 | 70 | 120 | 150 | 140 |
| 6 | 160 | 130 | 110 | 120 | 130 | --- | 140 | 120 | 70 | 120 | 140 | 130 |
| 7 | 160 | 140 | 130 | 130 | 130 | 130 | 150 | 120 | 70 | 140 | 150 | 160 |
| 8 | 150 | 120 | 130 | 140 | 140 | 140 | 140 | 110 | 75 | 140 | 140 | 140 |
| 9 | 160 | 120 | 130 | 130 | 140 | 140 | 140 | 120 | 75 | --- | 140 | 140 |
| 10 | 160 | 130 | 140 | 90 | 110 | 140 | 140 | 100 | 60 | 140 | 150 | 130 |
| 11 | 160 | 140 | 130 | 140 | 130 | 130 | 140 | 110 | 65 | 140 | 155 | 140 |
| 12 | 150 | 120 | 90 | 120 | 120 | 140 | 150 | 110 | 65 | 140 | 150 | 160 |
| 13 | 140 | 140 | 120 | 140 | 130 | 120 | 140 | 110 | 65 | 130 | 150 | 140 |
| 14 | 140 | 140 | 120 | 140 | 140 | 140 | 120 | 100 | 65 | 130 | 130 | 130 |
| 15 | --- | 140 | 130 | 140 | 130 | 140 | 140 | 110 | 80 | 125 | 130 | 130 |
| 16 | --- | 140 | 130 | 140 | 130 | 140 | 140 | 110 | 75 | 140 | 130 | 140 |
| 17 | --- | 140 | 130 | 130 | 130 | 130 | 160 | 100 | 70 | 140 | 130 | 140 |
| 18 | --- | 140 | 130 | 140 | 130 | 150 | 150 | 120 | 80 | 150 | 140 | 130 |
| 19 | 130 | 130 | 140 | 140 | 130 | 140 | 160 | 110 | 70 | 140 | 130 | 140 |
| 20 | 130 | 140 | 140 | 140 | 130 | 140 | 150 | 110 | 100 | 140 | 130 | 170 |
| 21 | 130 | 120 | 140 | 140 | 140 | 140 | 150 | 100 | 95 | 140 | 130 | 140 |
| 22 | 130 | 150 | 140 | 140 | 110 | 140 | 160 | 90 | 95 | 145 | 140 | 150 |
| 23 | 130 | 140 | 130 | 140 | 130 | 130 | 160 | 85 | --- | 140 | 130 | 160 |
| 24 | 130 | 140 | 130 | 140 | 130 | 130 | 150 | 80 | 90 | 140 | 140 | 140 |
| 25 | 140 | 130 | 130 | 140 | 130 | 140 | --- | 80 | 90 | 140 | 130 | 100 |
| 26 | 140 | 140 | 140 | --- | 130 | 130 | 160 | 85 | 80 | 140 | 130 | 180 |
| 27 | 140 | 140 | 130 | 140 | 130 | 140 | 150 | 85 | 90 | 140 | 130 | 180 |
| 28 | 130 | 140 | 140 | 130 | 140 | 140 | 150 | 100 | 80 | 140 | 130 | 130 |
| 29 | 120 | 130 | 140 | 130 | 140 | --- | 140 | 85 | 100 | 140 | 120 | 140 |
| 30 | 130 | 140 | 130 | 130 | --- | 130 | 140 | 90 | 100 | 140 | 120 | 160 |
| 31 | 130 | --- | 130 | 120 | --- | 140 | --- | 80 | --- | 140 | 130 | --- |

### 09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.0 | 1.0 | .0 | .0 | .0 | .0 | .0 | 5.0 | 11.0 | 16.0 | 18.0 | 7.0 |
| 2 | 14.0 | 1.0 | .0 | .0 | .0 | .0 | 5.0 | 10.0 | 12.0 | 17.0 | 21.0 | 13.0 |
| 3 | 17.0 | 1.0 | --- | .0 | .0 | .0 | 3.0 | 8.0 | 9.0 | 17.0 | 19.0 | 15.0 |
| 4 | 8.0 | 1.0 | .0 | .0 | .0 | .0 | 6.0 | 10.0 | 10.0 | 18.0 | 20.0 | 16.0 |
| 5 | 10.0 | 4.0 | --- | .0 | .0 | .0 | 8.0 | 9.0 | 12.0 | 17.0 | 18.0 | 20.0 |
| 6 | 17.0 | 5.0 | .0 | .0 | .0 | --- | .0 | 10.0 | 11.0 | 19.0 | 20.0 | 19.0 |
| 7 | 14.0 | 3.0 | .0 | .0 | .0 | .0 | .0 | 9.0 | 12.0 | 15.0 | 21.0 | 17.0 |
| 8 | 12.0 | 2.0 | .0 | .0 | .0 | .0 | 4.0 | 6.0 | 12.0 | 17.0 | 19.0 | 13.0 |
| 9 | 10.0 | 4.0 | .0 | .0 | .0 | .0 | .0 | 7.0 | 15.0 | 19.0 | 20.0 | 15.0 |
| 10 | 12.0 | 2.0 | .0 | .0 | .0 | .0 | 6.0 | 10.0 | 15.0 | 22.0 | 20.0 | 18.0 |
| 11 | 11.0 | 1.0 | .0 | .0 | .0 | .0 | 5.0 | 10.0 | 14.0 | 18.0 | 20.0 | 15.0 |
| 12 | 13.0 | 2.0 | .0 | .0 | .0 | .0 | 4.0 | 4.0 | 13.0 | 13.0 | 20.0 | 13.0 |
| 13 | 10.0 | .0 | .0 | .0 | .0 | .0 | 4.0 | 4.0 | 13.0 | 18.0 | 20.0 | 10.0 |
| 14 | 10.0 | .0 | .0 | .0 | .0 | .0 | 9.0 | 9.0 | 13.0 | 19.0 | 18.0 | 17.0 |
| 15 | --- | .0 | .0 | .0 | .0 | .0 | 3.0 | 8.0 | 15.0 | 20.0 | 18.0 | 17.0 |
| 16 | --- | .0 | .0 | .0 | .0 | .0 | 2.0 | 8.0 | 13.0 | 12.0 | 17.0 | 14.0 |
| 17 | --- | .0 | .0 | .0 | .0 | .0 | 13.0 | 6.0 | 14.0 | 18.0 | 17.0 | 14.0 |
| 18 | --- | .0 | .0 | .0 | .0 | .0 | 9.0 | 10.0 | 14.0 | 18.0 | 19.0 | 17.0 |
| 19 | 10.0 | .0 | .0 | .0 | .0 | 1.0 | 5.0 | 10.0 | 13.0 | 20.0 | 20.0 | 15.0 |
| 20 | 8.0 | .0 | .0 | .0 | .0 | 1.0 | 9.0 | 11.0 | 16.0 | 20.0 | 20.0 | 11.0 |
| 21 | 7.0 | .0 | .0 | .0 | .0 | 2.0 | 5.0 | 15.0 | 13.0 | 12.0 | 19.0 | 13.0 |
| 22 | 3.0 | .0 | .0 | .0 | .0 | .0 | 5.0 | 10.0 | 16.0 | 20.0 | 19.0 | 18.0 |
| 23 | 8.0 | .0 | .0 | .0 | .0 | 3.0 | 6.0 | 12.0 | --- | 20.0 | 19.0 | 15.0 |
| 24 | 8.0 | .0 | .0 | .0 | .0 | 2.0 | 2.0 | 12.0 | 15.0 | 16.0 | 17.0 | 17.0 |
| 25 | 3.0 | .0 | .0 | .0 | .0 | 2.0 | --- | 11.0 | 16.0 | 16.0 | 15.0 | 14.0 |
| 26 | 11.0 | .0 | .0 | --- | .0 | 2.0 | 10.0 | 9.0 | 12.0 | 18.0 | 15.0 | 10.0 |
| 27 | 7.0 | .0 | .0 | .0 | .0 | .0 | 9.0 | 7.0 | 15.0 | 19.0 | 17.0 | 10.0 |
| 28 | 5.0 | .0 | .0 | .0 | .0 | 1.0 | 7.0 | 11.0 | 16.0 | 19.0 | 23.0 | 12.0 |
| 29 | 5.0 | .0 | .0 | .0 | .0 | --- | 3.0 | 6.0 | 17.0 | 18.0 | 16.0 | 18.0 |
| 30 | 2.0 | .0 | .0 | .0 | --- | .0 | 4.0 | 11.0 | 17.0 | 18.0 | 12.0 | 12.0 |
| 31 | 1.0 | --- | .0 | .0 | --- | .0 | --- | 11.0 | --- | 19.0 | 17.0 | --- |

## 09034900 BOBTAIL CREEK NEAR JONES PASS, CO

LOCATION.--Lat 39°45'37", long 105°54'21", in sec. 26, T. 3 S., R. 76 W., Grand County, Hydrologic Unit 14010001, on left bank 320 ft (98 m) upstream from diversion dam and 0.4 mi (0.6 km) south of entrance to August P. Gumlick Tunnel.

DRAINAGE AREA.--5.49 $mi^2$ (14.21 $km^2$).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10,430 ft (3,179 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years, 9.73 $ft^3/s$ (0.276 $m^3/s$), 7,050 acre-ft/yr (8.69 $hm^3/yr$).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 187 $ft^3/s$ (5.30 $m^3/s$) June 20, 1968, gage height, 4.71 ft (1.436 m); maximum recorded gage height, 6.53 ft (1.990 m) May 23, 1980 (backwater from ice); minimum daily discharge, 0.44 $ft^3/s$ (0.012 $m^3/s$) Feb. 11, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 144 $ft^3/s$ (4.08 $m^3/s$) at 1800 June 12, gage-height, 4.49 ft (1.369 m), only peak above base of 90 $ft^3/s$ (2.5 $m^3/s$); maximum recorded gage height, 6.53 ft (1.990 m) May 23 (backwater from ice); minimum daily discharge, 0.60 $ft^3/s$ (0.017 $m^3/s$) Mar. 2-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.9 | 1.5 | 1.0 | .90 | .70 | .70 | .80 | 1.0 | 26 | 46 | 11 | 4.6 |
| 2 | 1.9 | 1.5 | 1.0 | .90 | .70 | .60 | .80 | 1.0 | 28 | 44 | 11 | 4.2 |
| 3 | 1.9 | 1.5 | 1.0 | .90 | .70 | .60 | .80 | 1.0 | 34 | 43 | 10 | 3.6 |
| 4 | 1.9 | 1.5 | 1.0 | .90 | .70 | .60 | .80 | 1.1 | 48 | 41 | 9.4 | 3.3 |
| 5 | 1.9 | 1.5 | 1.0 | .90 | .70 | .60 | .80 | 1.3 | 53 | 40 | 8.9 | 3.3 |
| 6 | 1.7 | 1.5 | 1.0 | .90 | .70 | .60 | .80 | 1.5 | 58 | 39 | 8.4 | 2.7 |
| 7 | 1.7 | 1.5 | 1.0 | .90 | .70 | .60 | .80 | 1.6 | 50 | 41 | 7.8 | 2.6 |
| 8 | 1.6 | 1.5 | 1.0 | .90 | .70 | .60 | .80 | 1.8 | 55 | 42 | 7.6 | 4.4 |
| 9 | 1.6 | 1.2 | 1.0 | .90 | .70 | .60 | .80 | 2.0 | 70 | 42 | 7.1 | 5.9 |
| 10 | 1.6 | 1.0 | 1.0 | .90 | .70 | .60 | .80 | 2.3 | 79 | 37 | 6.1 | 5.5 |
| 11 | 1.6 | 1.1 | 1.0 | .80 | .70 | .70 | .80 | 2.4 | 95 | 33 | 5.5 | 6.6 |
| 12 | 1.6 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 2.6 | 105 | 33 | 5.3 | 4.8 |
| 13 | 1.6 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 2.4 | 101 | 31 | 5.3 | 4.4 |
| 14 | 1.4 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 2.2 | 95 | 29 | 5.7 | 4.0 |
| 15 | 1.6 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 1.7 | 85 | 26 | 7.4 | 3.8 |
| 16 | 1.8 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 1.4 | 76 | 25 | 6.1 | 4.4 |
| 17 | 1.7 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 1.4 | 76 | 23 | 5.3 | 4.2 |
| 18 | 1.6 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 1.4 | 76 | 22 | 4.6 | 4.0 |
| 19 | 1.6 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 1.6 | 75 | 22 | 4.2 | 3.6 |
| 20 | 1.4 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 2.1 | 72 | 21 | 3.6 | 5.3 |
| 21 | 1.5 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 5.3 | 69 | 19 | 3.5 | 3.8 |
| 22 | 1.5 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 8.0 | 66 | 19 | 3.3 | 3.6 |
| 23 | 1.5 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 11 | 64 | 18 | 3.3 | 3.6 |
| 24 | 1.6 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 16 | 60 | 17 | 4.8 | 3.5 |
| 25 | 1.6 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | 25 | 58 | 16 | 7.8 | 3.1 |
| 26 | 1.7 | 1.2 | 1.0 | .80 | .70 | .70 | .84 | 24 | 56 | 16 | 8.6 | 3.1 |
| 27 | 1.7 | 1.2 | 1.0 | .80 | .70 | .70 | .88 | 23 | 54 | 14 | 6.1 | 3.1 |
| 28 | 1.7 | 1.2 | 1.0 | .80 | .70 | .70 | .92 | 22 | 52 | 13 | 4.8 | 2.9 |
| 29 | 1.7 | 1.0 | 1.0 | .80 | .70 | .70 | .95 | 21 | 49 | 12 | 4.6 | 2.7 |
| 30 | 1.7 | 1.0 | 1.0 | .80 | --- | .70 | 1.0 | 21 | 48 | 12 | 5.0 | 2.6 |
| 31 | 1.7 | --- | 1.0 | .80 | --- | .70 | --- | 25 | --- | 12 | 5.7 | --- |
| TOTAL | 51.5 | 37.7 | 31.0 | 25.80 | 20.30 | 20.80 | 24.59 | 235.1 | 1933 | 848 | 197.8 | 117.2 |
| MEAN | 1.66 | 1.26 | 1.00 | .83 | .70 | .67 | .82 | 7.58 | 64.4 | 27.4 | 6.38 | 3.91 |
| MAX | 1.9 | 1.5 | 1.0 | .90 | .70 | .70 | 1.0 | 25 | 105 | 46 | 11 | 6.6 |
| MIN | 1.4 | 1.0 | 1.0 | .80 | .70 | .60 | .80 | 1.0 | 26 | 12 | 3.3 | 2.6 |
| AC-FT | 102 | 75 | 61 | 51 | 40 | 41 | 49 | 466 | 3830 | 1680 | 392 | 232 |

CAL YR 1979 TOTAL 4075.88 MEAN 11.2 MAX 92 MIN .50 AC-FT 8080
WTR YR 1980 TOTAL 3542.79 MEAN 9.68 MAX 105 MIN .60 AC-FT 7030

NOTE.--NO GAGE-HEIGHT RECORD NOV. 11 TO MAY 15.

## 09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO

LOCATION.--Lat 39°46'44", long 105°55'40", in sec.20, T.3 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 700 ft (210 m) downstream from Steelman Creek and 6.5 mi (10.5 km) southeast of Leal.

DRAINAGE AREA.--16.3 mi² (42.2 km²).

PERIOD OF RECORD.--July 1933 to September 1941, published as Williams River below Steelman Creek, October 1965 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Altitude of gage is 9,800 ft (2,987 m), from topographic map. Prior to July 21, 1933, nonrecording gage, and July 21, 1933, to Sept. 30, 1941, water-stage recorder at site 600 ft (180 m) upstream at different datum.

REMARKS.--Records poor except those for July to September, which are good. Transmountain diversions above station through August P. Gumlick Tunnel (station 09036000) since May 10, 1940. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 25.2 ft³/s (0.714 m³/s), 18,260 acre-ft/yr (22.5 hm³/yr), including diversions to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441 ft³/s (12.5 m³/s) June 21, 1938, gage height, 2.48 ft (0.756 m), site and datum then in use, from rating curve extended above 260 ft³/s (7.4 m³/s); maximum gage height, 5.66 ft (1.725 m) May 10, 1973 (backwater from ice); minimum daily discharge, 0.20 ft³/s (0.006 m³/s) Mar. 6, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; minimum daily, 0.66 ft³/s (0.019 m³/s) Oct. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.6 | .80 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 4.2 | 60 | 145 | 16 | 11 |
| 2 | 5.6 | .80 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 4.0 | 64 | 125 | 1.9 | 9.6 |
| 3 | 5.6 | .80 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 4.5 | 68 | 115 | 1.6 | 9.3 |
| 4 | 5.6 | .80 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 4.9 | 74 | 105 | 6.8 | 9.3 |
| 5 | 5.6 | .78 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 5.8 | 82 | 100 | 1.3 | 8.9 |
| 6 | 5.6 | .70 | 2.5 | 2.5 | 2.0 | 2.1 | 2.0 | 6.5 | 92 | 92 | 3.0 | 8.5 |
| 7 | 5.6 | .70 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 7.3 | 95 | 80 | 1.2 | 8.5 |
| 8 | 3.9 | .70 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 7.6 | 108 | 60 | 1.5 | 15 |
| 9 | .96 | .70 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 6.8 | 122 | 40 | 1.8 | 14 |
| 10 | .66 | .70 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 8.0 | 140 | 50 | 1.6 | 14 |
| 11 | .66 | .70 | 2.5 | 3.0 | 2.0 | 2.0 | 2.0 | 9.2 | 155 | 89 | 4.5 | 15 |
| 12 | .72 | .70 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 11 | 180 | 102 | 4.7 | 11 |
| 13 | .72 | .70 | 3.0 | 2.5 | 2.0 | 2.0 | 2.0 | 9.8 | 190 | 89 | 5.3 | 10 |
| 14 | .78 | .70 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 8.8 | 190 | 81 | 6.5 | 9.6 |
| 15 | .78 | 2.0 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 8.0 | 188 | 49 | 7.1 | 9.3 |
| 16 | .84 | 3.5 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 7.0 | 180 | 26 | 5.9 | 9.6 |
| 17 | .84 | 3.5 | 2.5 | 2.5 | 2.0 | 2.0 | 3.0 | 7.0 | 180 | 30 | 5.6 | 9.3 |
| 18 | .90 | 3.5 | 2.5 | 2.5 | 2.0 | 2.0 | 3.3 | 7.0 | 170 | 57 | 6.2 | 8.9 |
| 19 | .90 | 3.0 | 2.5 | 2.5 | 2.0 | 2.0 | 3.8 | 7.0 | 170 | 53 | 5.6 | 8.1 |
| 20 | .90 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 4.4 | 10 | 170 | 51 | 6.2 | 11 |
| 21 | .90 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 5.0 | 15 | 171 | 47 | 6.2 | 8.9 |
| 22 | .94 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 5.2 | 20 | 171 | 44 | 6.2 | 7.7 |
| 23 | .96 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 4.8 | 28 | 175 | 44 | 6.2 | 7.1 |
| 24 | .90 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 4.2 | 60 | 180 | 42 | 7.1 | 7.1 |
| 25 | .90 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 4.8 | 54 | 170 | 39 | 7.4 | 6.8 |
| 26 | .90 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 3.6 | 47 | 170 | 35 | 5.9 | 6.8 |
| 27 | .90 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 3.8 | 46 | 160 | 33 | 5.6 | 6.8 |
| 28 | .78 | 2.5 | 2.5 | 3.0 | 2.0 | 2.0 | 4.1 | 54 | 150 | 16 | 5.3 | 6.5 |
| 29 | .80 | 2.5 | 2.5 | 3.0 | 2.0 | 2.0 | 4.5 | 56 | 145 | 16 | 5.0 | 6.2 |
| 30 | .80 | 2.5 | 2.5 | 3.0 | --- | 2.0 | 4.8 | 50 | 145 | 17 | 9.3 | 5.9 |
| 31 | .80 | --- | 2.5 | 2.5 | --- | 2.0 | --- | 58 | --- | 2.0 | 12 | --- |
| TOTAL | 62.34 | 53.28 | 78.0 | 79.5 | 58.0 | 62.1 | 91.3 | 632.4 | 4315 | 1874.0 | 170.5 | 279.7 |
| MEAN | 2.01 | 1.78 | 2.52 | 2.56 | 2.00 | 2.00 | 3.04 | 20.4 | 144 | 60.5 | 5.50 | 9.32 |
| MAX | 5.6 | 3.5 | 3.0 | 3.0 | 2.0 | 2.1 | 5.2 | 60 | 190 | 145 | 16 | 15 |
| MIN | .66 | .70 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 4.0 | 60 | 2.0 | 1.2 | 5.9 |
| AC-FT | 124 | 106 | 155 | 158 | 115 | 123 | 181 | 1250 | 8560 | 3720 | 338 | 555 |

CAL YR 1979 TOTAL 6550.51 MEAN 17.9 MAX 190 MIN .28 AC-FT 12990
WTR YR 1980 TOTAL 7756.12 MEAN 21.2 MAX 190 MIN .66 AC-FT 15380

NOTE.--NO GAGE-HEIGHT RECORD NOV. 6 TO JUNE 20.

## 09035700 WILLIAMS FORK ABOVE DARLING CREEK, NEAR LEAL, CO

LOCATION.--Lat 39°47'22", long 106°01'18", in NW¼SW¼ sec.16, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 1.0 mi (1.6 km) upstream from Darling Creek and 1.9 mi (3.1 km) southeast of Leal.

DRAINAGE AREA.--34.7 mi² (89.9 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,970 ft (2,734 m), from topographic map. Prior to Oct. 1, 1972, at site 0.6 mi (1.0 km) downstream at different datum.

REMARKS.--Records good except those for winter period and period of backwater from beaver dam (Sept. 7-30) which are poor. Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years, 35.2 ft³/s (0.997 m³/s), 25,500 acre-ft/yr (31.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 677 ft³/s (19.2 m³/s) June 24, 1971, gage height, 7.12 ft (2.170 m), site and datum then in use, from rating curve extended above 430 ft³/s (12 m³/s); minimum daily, 2.7 ft³/s (0.076 m³/s) Apr. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 281 ft³/s (7.96 m³/s) at 2000 June 12, gage height, 4.47 ft (1.362 m); minimum daily, 3.0 ft³/s (0.085 m³/s) Feb. 26 to Mar. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | 5.1 | 5.0 | 5.0 | 4.0 | 3.0 | 3.5 | 9.4 | 86 | 198 | 23 | 19 |
| 2 | 9.3 | 5.2 | 5.0 | 5.0 | 4.0 | 3.0 | 3.5 | 9.1 | 89 | 188 | 20 | 18 |
| 3 | 8.9 | 5.2 | 5.0 | 5.0 | 4.0 | 3.0 | 3.5 | 11 | 105 | 175 | 19 | 17 |
| 4 | 9.1 | 5.1 | 5.0 | 5.0 | 4.0 | 3.0 | 3.5 | 14 | 128 | 159 | 24 | 16 |
| 5 | 8.6 | 5.1 | 5.0 | 5.0 | 4.0 | 3.0 | 3.5 | 17 | 148 | 144 | 18 | 16 |
| 6 | 8.2 | 4.9 | 5.0 | 5.0 | 4.0 | 3.0 | 3.5 | 19 | 161 | 130 | 19 | 18 |
| 7 | 8.3 | 4.7 | 5.0 | 5.0 | 4.0 | 3.0 | 3.5 | 21 | 162 | 125 | 16 | 17 |
| 8 | 8.0 | 4.3 | 5.0 | 5.0 | 4.0 | 3.0 | 3.5 | 22 | 180 | 113 | 15 | 19 |
| 9 | 5.7 | 4.3 | 5.0 | 4.7 | 3.5 | 3.0 | 3.5 | 19 | 200 | 92 | 15 | 20 |
| 10 | 4.5 | 4.5 | 5.0 | 4.5 | 3.5 | 3.0 | 3.5 | 20 | 220 | 65 | 15 | 20 |
| 11 | 4.9 | 3.8 | 5.0 | 4.5 | 3.5 | 3.0 | 3.5 | 23 | 234 | 99 | 18 | 21 |
| 12 | 4.8 | 5.0 | 5.0 | 4.5 | 3.5 | 3.0 | 3.5 | 25 | 243 | 110 | 17 | 21 |
| 13 | 4.7 | 5.0 | 5.0 | 4.5 | 3.5 | 3.0 | 3.5 | 19 | 245 | 97 | 17 | 21 |
| 14 | 4.5 | 5.0 | 5.0 | 4.5 | 3.5 | 3.0 | 3.5 | 17 | 243 | 89 | 18 | 21 |
| 15 | 4.5 | 5.0 | 5.0 | 4.5 | 3.5 | 3.0 | 3.5 | 17 | 234 | 71 | 23 | 22 |
| 16 | 4.9 | 5.0 | 5.0 | 4.5 | 3.5 | 3.0 | 4.4 | 17 | 225 | 47 | 19 | 22 |
| 17 | 4.8 | 6.5 | 5.0 | 4.5 | 3.5 | 3.0 | 7.6 | 16 | 224 | 52 | 19 | 22 |
| 18 | 5.4 | 6.5 | 5.0 | 4.5 | 3.5 | 3.0 | 8.0 | 16 | 224 | 73 | 17 | 21 |
| 19 | 7.8 | 6.5 | 5.0 | 4.5 | 3.5 | 3.5 | 8.5 | 17 | 220 | 70 | 16 | 21 |
| 20 | 5.7 | 6.5 | 5.0 | 4.5 | 3.5 | 3.5 | 9.3 | 20 | 217 | 65 | 17 | 21 |
| 21 | 5.4 | 6.5 | 5.0 | 4.5 | 3.5 | 3.5 | 11 | 29 | 218 | 61 | 16 | 21 |
| 22 | 5.4 | 6.5 | 5.0 | 4.5 | 3.5 | 3.5 | 12 | 45 | 219 | 57 | 16 | 21 |
| 23 | 5.7 | 6.5 | 5.0 | 4.5 | 3.5 | 3.5 | 11 | 66 | 228 | 57 | 17 | 20 |
| 24 | 5.8 | 6.0 | 5.0 | 4.5 | 3.5 | 3.5 | 8.4 | 81 | 231 | 53 | 19 | 19 |
| 25 | 5.5 | 6.0 | 5.0 | 4.5 | 3.5 | 3.5 | 12 | 75 | 223 | 49 | 22 | 19 |
| 26 | 6.2 | 6.0 | 5.0 | 4.5 | 3.0 | 3.5 | 7.5 | 62 | 220 | 47 | 21 | 19 |
| 27 | 5.8 | 6.0 | 5.0 | 4.5 | 3.0 | 3.5 | 8.2 | 55 | 217 | 43 | 16 | 18 |
| 28 | 4.8 | 6.0 | 5.0 | 4.5 | 3.0 | 3.5 | 9.0 | 70 | 215 | 38 | 15 | 18 |
| 29 | 5.1 | 5.4 | 5.0 | 4.5 | 3.0 | 3.5 | 10 | 78 | 196 | 25 | 14 | 17 |
| 30 | 5.0 | 5.0 | 5.0 | 4.5 | --- | 3.5 | 11 | 66 | 194 | 26 | 16 | 17 |
| 31 | 5.0 | --- | 5.0 | 4.5 | --- | 3.5 | --- | 81 | --- | 21 | 21 | --- |
| TOTAL | 192.3 | 163.1 | 155.0 | 143.7 | 103.5 | 99.5 | 190.4 | 1056.5 | 5949 | 2639 | 558 | 582 |
| MEAN | 6.20 | 5.44 | 5.00 | 4.64 | 3.57 | 3.21 | 6.35 | 34.1 | 198 | 85.1 | 18.0 | 19.4 |
| MAX | 10 | 6.5 | 5.0 | 5.0 | 4.0 | 3.5 | 12 | 81 | 245 | 198 | 24 | 22 |
| MIN | 4.5 | 3.8 | 5.0 | 4.5 | 3.0 | 3.0 | 3.5 | 9.1 | 86 | 21 | 14 | 16 |
| AC-FT | 381 | 324 | 307 | 285 | 205 | 197 | 378 | 2100 | 11800 | 5230 | 1110 | 1150 |

CAL YR 1979 TOTAL 11880.6 MEAN 32.5 MAX 267 MIN 3.5 AC-FT 23570
WTR YR 1980 TOTAL 11832.0 MEAN 32.3 MAX 245 MIN 3.0 AC-FT 23470

## 09035800 DARLING CREEK NEAR LEAL, CO

LOCATION.--Lat 39°48'17", long 106°01'11", in NE¼SW¼ sec.9, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 0.6 mi (1.0 km) upstream from mouth and 1.4 mi (2.3 km) southeast of Leal.

DRAINAGE AREA.--8.18 mi² (21.2 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,090 ft (2,771 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years, 9.05 ft³/s (0.256 m³/s), 6,560 acre-ft/yr (8.09 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 224 ft³/s (6.34 m³/s) June 20, 1968, gage height, 3.62 ft (1.103 m), from rating curve extended above 80 ft³/s (2.3 m³/s); maximum gage height, 3.91 ft (1.192 m) June 25, 1971; minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Jan. 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge, 87 ft³/s (2.46 m³/s) at 1900 June 12, gage height, 3.62 ft (1.103 m); minimum daily, 1.8 ft³/s (0.051 m³/s) Mar. 14-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.7 | 2.5 | 2.9 | 2.5 | 2.1 | 2.0 | 1.9 | 2.6 | 21 | 34 | 7.8 | 4.9 |
| 2 | 2.7 | 2.5 | 2.8 | 2.5 | 2.1 | 2.0 | 1.9 | 2.5 | 22 | 37 | 7.7 | 4.7 |
| 3 | 3.1 | 2.5 | 2.8 | 2.5 | 2.1 | 2.0 | 1.9 | 2.4 | 25 | 39 | 7.4 | 4.5 |
| 4 | 3.2 | 2.5 | 2.8 | 2.5 | 2.1 | 1.9 | 1.9 | 2.8 | 30 | 32 | 6.8 | 4.4 |
| 5 | 3.1 | 2.5 | 2.8 | 2.5 | 2.1 | 1.9 | 1.9 | 3.4 | 36 | 28 | 6.3 | 4.3 |
| 6 | 3.0 | 2.5 | 2.7 | 2.5 | 2.1 | 1.9 | 1.9 | 3.7 | 41 | 25 | 5.9 | 4.2 |
| 7 | 2.9 | 2.5 | 2.7 | 2.5 | 2.1 | 1.9 | 1.9 | 4.4 | 40 | 22 | 5.9 | 4.9 |
| 8 | 2.9 | 2.5 | 2.7 | 2.5 | 2.1 | 1.9 | 1.9 | 4.5 | 43 | 20 | 5.7 | 7.2 |
| 9 | 2.9 | 2.5 | 2.7 | 2.4 | 2.1 | 1.9 | 1.9 | 4.0 | 48 | 19 | 5.5 | 7.1 |
| 10 | 2.9 | 2.5 | 2.7 | 2.3 | 2.0 | 1.9 | 1.9 | 3.6 | 52 | 18 | 5.1 | 6.3 |
| 11 | 2.9 | 2.5 | 2.7 | 2.2 | 2.0 | 1.9 | 1.9 | 4.5 | 61 | 18 | 5.1 | 6.6 |
| 12 | 2.9 | 2.5 | 2.7 | 2.1 | 2.0 | 1.9 | 1.9 | 4.7 | 65 | 18 | 5.0 | 5.5 |
| 13 | 2.9 | 2.5 | 2.6 | 2.1 | 2.0 | 1.9 | 1.9 | 3.6 | 65 | 17 | 4.9 | 5.2 |
| 14 | 2.8 | 2.5 | 2.6 | 2.1 | 2.0 | 1.8 | 1.9 | 3.3 | 62 | 16 | 5.7 | 4.8 |
| 15 | 2.9 | 2.5 | 2.6 | 2.1 | 2.1 | 1.8 | 1.9 | 3.2 | 58 | 15 | 7.3 | 4.7 |
| 16 | 3.2 | 2.6 | 2.6 | 2.1 | 2.1 | 1.8 | 1.9 | 3.3 | 54 | 14 | 5.6 | 4.8 |
| 17 | 3.2 | 2.6 | 2.6 | 2.1 | 2.1 | 1.8 | 1.9 | 3.1 | 52 | 13 | 5.2 | 4.5 |
| 18 | 3.1 | 2.7 | 2.6 | 2.1 | 2.1 | 1.9 | 2.0 | 2.9 | 49 | 13 | 5.2 | 4.2 |
| 19 | 3.1 | 2.8 | 2.6 | 2.1 | 2.1 | 1.9 | 2.0 | 3.3 | 47 | 13 | 5.1 | 4.0 |
| 20 | 3.1 | 2.8 | 2.6 | 2.1 | 2.1 | 1.9 | 2.0 | 4.0 | 48 | 12 | 5.0 | 5.2 |
| 21 | 3.0 | 2.8 | 2.6 | 2.1 | 2.1 | 1.9 | 2.1 | 5.8 | 48 | 11 | 4.8 | 4.3 |
| 22 | 2.9 | 2.8 | 2.5 | 2.1 | 2.1 | 1.9 | 2.2 | 10 | 47 | 11 | 4.7 | 4.1 |
| 23 | 3.1 | 2.8 | 2.5 | 2.1 | 2.1 | 1.9 | 2.2 | 15 | 47 | 11 | 5.6 | 4.1 |
| 24 | 3.1 | 2.8 | 2.5 | 2.1 | 2.1 | 1.9 | 2.3 | 17 | 46 | 10 | 6.7 | 4.1 |
| 25 | 3.1 | 2.8 | 2.5 | 2.1 | 2.1 | 1.9 | 2.4 | 16 | 44 | 10 | 7.6 | 4.0 |
| 26 | 3.0 | 2.9 | 2.5 | 2.1 | 2.0 | 1.9 | 2.5 | 13 | 42 | 10 | 7.0 | 3.9 |
| 27 | 2.9 | 2.9 | 2.5 | 2.1 | 2.0 | 1.9 | 2.5 | 13 | 41 | 9.4 | 5.5 | 3.9 |
| 28 | 2.8 | 2.9 | 2.5 | 2.1 | 2.0 | 1.9 | 2.6 | 17 | 37 | 8.9 | 5.2 | 3.8 |
| 29 | 2.7 | 2.9 | 2.5 | 2.1 | 2.0 | 1.9 | 2.7 | 17 | 35 | 8.5 | 5.0 | 3.7 |
| 30 | 2.5 | 2.9 | 2.5 | 2.1 | --- | 1.9 | 2.9 | 16 | 35 | 9.1 | 5.1 | 3.5 |
| 31 | 2.5 | --- | 2.5 | 2.1 | --- | 1.9 | --- | 19 | --- | 8.1 | 5.5 | --- |
| TOTAL | 91.1 | 79.5 | 81.4 | 68.9 | 60.0 | 58.8 | 62.7 | 229.6 | 1341 | 530.0 | 181.1 | 141.4 |
| MEAN | 2.94 | 2.65 | 2.63 | 2.22 | 2.07 | 1.90 | 2.09 | 7.41 | 44.7 | 17.1 | 5.84 | 4.71 |
| MAX | 3.2 | 2.9 | 2.9 | 2.5 | 2.1 | 2.0 | 2.9 | 19 | 65 | 39 | 7.8 | 7.2 |
| MIN | 2.5 | 2.5 | 2.5 | 2.1 | 2.0 | 1.8 | 1.9 | 2.4 | 21 | 8.1 | 4.7 | 3.5 |
| AC-FT | 181 | 158 | 161 | 137 | 119 | 117 | 124 | 455 | 2660 | 1050 | 359 | 280 |

CAL YR 1979 TOTAL 3251.0 MEAN 8.91 MAX 60 MIN 1.7 AC-FT 6450
WTR YR 1980 TOTAL 2925.5 MEAN 7.99 MAX 65 MIN 1.8 AC-FT 5800

NOTE.--NO GAGE-HEIGHT RECORD NOV. 1 TO APR. 29.

## 09035900 SOUTH FORK OF WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°47'44", long 106°01'49", in NE¼ sec.17, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 800 ft (244 m) upstream from highway bridge, 0.6 mi (1.0 km) upstream from mouth, and 1.2 mi (1.9 km) southeast of Leal.

DRAINAGE AREA.--27.2 mi² (70.4 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,950 ft (2,728 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years, 30.3 ft³/s (0.858 m³/s), 21,950 acre-ft/yr (27.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 464 ft³/s (13.1 m³/s) June 15, 1978, gage height 3.37 ft (1.027 m); maximum gage height, 4.22 ft (1.286 m) Nov. 22, 1979 (backwater from ice); minimum daily discharge, 2.6 ft³/s (0.074 m³/s) Mar. 6, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 370 ft³/s (10.5 m³/s) at 2100 June 11, gage height, 3.24 ft (0.988 m); only peak above base of 200 ft³/s (5.7 m³/s); minimum daily, 6.0 ft³/s (0.17 m³/s) Jan. 10 to Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11 | 11 | 9.2 | 6.5 | 6.0 | 7.0 | 7.0 | 19 | 100 | 154 | 25 | 18 |
| 2 | 11 | 11 | 8.8 | 6.6 | 6.0 | 7.0 | 7.0 | 19 | 104 | 137 | 24 | 18 |
| 3 | 11 | 12 | 9.2 | 6.6 | 6.0 | 7.0 | 7.0 | 18 | 118 | 122 | 23 | 17 |
| 4 | 11 | 12 | 8.0 | 6.6 | 6.0 | 7.0 | 7.0 | 18 | 128 | 115 | 23 | 15 |
| 5 | 11 | 13 | 8.0 | 6.6 | 6.0 | 7.0 | 7.0 | 19 | 141 | 106 | 21 | 14 |
| 6 | 11 | 13 | 8.0 | 6.6 | 6.0 | 7.0 | 7.0 | 21 | 161 | 100 | 21 | 14 |
| 7 | 11 | 13 | 8.0 | 6.6 | 6.0 | 7.0 | 7.0 | 25 | 143 | 97 | 19 | 14 |
| 8 | 11 | 13 | 8.0 | 6.6 | 6.0 | 7.0 | 7.0 | 29 | 143 | 89 | 19 | 17 |
| 9 | 11 | 13 | 8.0 | 6.2 | 6.0 | 7.0 | 7.0 | 33 | 177 | 76 | 19 | 21 |
| 10 | 11 | 13 | 8.0 | 6.0 | 6.0 | 7.0 | 7.0 | 36 | 210 | 73 | 18 | 18 |
| 11 | 11 | 12 | 7.6 | 6.0 | 6.0 | 7.0 | 7.0 | 35 | 213 | 76 | 18 | 21 |
| 12 | 11 | 11 | 7.2 | 6.0 | 6.0 | 7.0 | 7.4 | 34 | 281 | 75 | 18 | 17 |
| 13 | 11 | 10 | 7.0 | 6.0 | 6.0 | 7.0 | 7.4 | 36 | 254 | 67 | 19 | 17 |
| 14 | 11 | 10 | 7.0 | 6.0 | 6.0 | 7.0 | 7.4 | 37 | 245 | 59 | 21 | 15 |
| 15 | 11 | 10 | 7.0 | 6.0 | 6.0 | 7.0 | 7.4 | 33 | 238 | 56 | 26 | 15 |
| 16 | 12 | 10 | 7.0 | 6.0 | 6.0 | 7.0 | 7.4 | 32 | 215 | 52 | 24 | 15 |
| 17 | 12 | 10 | 7.0 | 6.0 | 6.0 | 7.0 | 7.4 | 30 | 213 | 50 | 22 | 15 |
| 18 | 12 | 10 | 7.0 | 6.0 | 6.0 | 7.0 | 7.4 | 29 | 216 | 47 | 20 | 14 |
| 19 | 12 | 10 | 7.0 | 6.0 | 6.0 | 7.0 | 7.4 | 28 | 207 | 44 | 19 | 13 |
| 20 | 12 | 10 | 7.0 | 6.0 | 6.0 | 7.0 | 7.4 | 27 | 197 | 42 | 19 | 15 |
| 21 | 12 | 10 | 7.0 | 6.0 | 6.4 | 7.0 | 8.4 | 30 | 195 | 40 | 18 | 14 |
| 22 | 13 | 10 | 7.0 | 6.0 | 6.4 | 7.0 | 12 | 55 | 189 | 38 | 18 | 13 |
| 23 | 15 | 10 | 7.0 | 6.0 | 6.4 | 7.0 | 16 | 74 | 189 | 37 | 18 | 13 |
| 24 | 13 | 10 | 7.0 | 6.0 | 6.4 | 7.0 | 18 | 72 | 192 | 37 | 20 | 13 |
| 25 | 12 | 10 | 7.0 | 6.0 | 7.0 | 7.0 | 19 | 68 | 178 | 34 | 27 | 12 |
| 26 | 12 | 10 | 7.0 | 6.0 | 7.0 | 7.0 | 16 | 69 | 175 | 31 | 32 | 12 |
| 27 | 12 | 10 | 7.0 | 6.0 | 7.0 | 7.0 | 14 | 71 | 176 | 29 | 22 | 12 |
| 28 | 11 | 10 | 7.0 | 6.0 | 7.0 | 7.0 | 14 | 90 | 170 | 28 | 19 | 12 |
| 29 | 12 | 10 | 6.8 | 6.0 | 7.0 | 7.0 | 15 | 89 | 154 | 27 | 18 | 12 |
| 30 | 13 | 9.6 | 6.6 | 6.0 | --- | 7.0 | 17 | 83 | 150 | 27 | 18 | 12 |
| 31 | 12 | --- | 6.6 | 6.0 | --- | 7.0 | --- | 95 | --- | 26 | 20 | --- |
| TOTAL | 362 | 326.6 | 229.0 | 191.0 | 180.6 | 217.0 | 293.0 | 1354 | 5472 | 1991 | 648 | 448 |
| MEAN | 11.7 | 10.9 | 7.39 | 6.16 | 6.23 | 7.00 | 9.77 | 43.7 | 182 | 64.2 | 20.9 | 14.9 |
| MAX | 15 | 13 | 9.2 | 6.6 | 7.0 | 7.0 | 19 | 95 | 281 | 154 | 32 | 21 |
| MIN | 11 | 9.6 | 6.6 | 6.0 | 6.0 | 7.0 | 7.0 | 18 | 100 | 26 | 18 | 12 |
| AC-FT | 718 | 648 | 454 | 379 | 358 | 430 | 581 | 2690 | 10850 | 3950 | 1290 | 889 |

CAL YR 1979 TOTAL 10812.6 MEAN 29.6 MAX 176 MIN 4.4 AC-FT 21450
WTR YR 1980 TOTAL 11712.2 MEAN 32.0 MAX 281 MIN 6.0 AC-FT 23230

NOTE.--NO GAGE-HEIGHT RECORD NOV. 7 TO APR. 29.

## 09036000 WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°49'53", long 106°03'15", in sec.31, T.2 S., R.77 W., Grand County, Hydrologic Unit 14010001, on right bank at downstream side of bridge, 100 ft (30 m) downstream from Kinney Creek, and 1.7 mi (2.7 km) northwest of Leal.

DRAINAGE AREA.--89.3 mi² (231.3 km²).

PERIOD OF RECORD.--July 1933 to current year. Records since May 10, 1940, equivalent to earlier records if diversion to August P. Gumlick Tunnel is added to flow past station. Prior to October 1958, published as Williams River near Leal.

REVISED RECORDS.--WSP 1733: 1951. WSP 2124: Drainage area. WRD Colo. 1973: 1972.

GAGE.--Water-stage recorder. Altitude of gage is 8,790 ft (2,679 m), from topographic map. Prior to Aug. 16, 1953, at site 15 ft (5 m) downstream at present datum.

REMARKS.--Records good. Transmountain diversion above station through August P. Gumlick Tunnel (see table below for figures of diversion). Diversions for irrigation of about 200 acres (809,000 m²) of hay meadows above station and about 40 acres (162,000 m²) below. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions, in acre-feet, through August P. Gumlick Tunnel, furnished by Colorado Division of Water Resources.

AVERAGE DISCHARGE.--47 years, 102 ft³/s (2.889 m³/s), 73,900 acre-ft/yr (91.1 hm³/yr), including diversions to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,720 ft³/s (48.7 m³/s) June 10, 1952, gage height, 4.23 ft (1.289 m); maximum gage height, 5.46 ft (1.664 m) June 29, 1971 (backwater from log); minimum daily discharge, 13 ft³/s (0.37 m³/s) at times in 1939, 1963, 1964, and 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 810 ft³/s (22.9 m³/s) at 2300 June 11, gage height, 3.38 ft (1.030 m); minimum daily, 18 ft³/s (0.51 m³/s) Jan. 22; Feb. 10-14, 24, 26; Mar. 2, 14-17, 19, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 28 | 21 | 25 | 23 | 20 | 19 | 19 | 53 | 268 | 505 | 69 | 49 |
| 2 | 28 | 25 | 25 | 24 | 19 | 19 | 19 | 50 | 271 | 484 | 66 | 45 |
| 3 | 27 | 24 | 25 | 24 | 19 | 19 | 19 | 56 | 304 | 442 | 62 | 44 |
| 4 | 26 | 27 | 25 | 24 | 20 | 19 | 19 | 70 | 367 | 385 | 64 | 43 |
| 5 | 26 | 25 | 25 | 24 | 19 | 19 | 19 | 88 | 426 | 355 | 58 | 40 |
| 6 | 26 | 25 | 25 | 24 | 20 | 19 | 20 | 98 | 472 | 324 | 55 | 38 |
| 7 | 26 | 26 | 24 | 24 | 20 | 19 | 20 | 116 | 475 | 305 | 50 | 39 |
| 8 | 26 | 26 | 25 | 24 | 19 | 19 | 19 | 119 | 486 | 292 | 46 | 51 |
| 9 | 27 | 25 | 25 | 24 | 19 | 19 | 19 | 107 | 541 | 250 | 46 | 67 |
| 10 | 25 | 25 | 24 | 23 | 18 | 19 | 21 | 101 | 599 | 205 | 44 | 55 |
| 11 | 25 | 25 | 24 | 21 | 18 | 20 | 20 | 114 | 678 | 233 | 47 | 63 |
| 12 | 25 | 24 | 24 | 23 | 18 | 20 | 20 | 119 | 702 | 262 | 48 | 49 |
| 13 | 24 | 23 | 24 | 24 | 18 | 19 | 19 | 93 | 703 | 230 | 48 | 47 |
| 14 | 24 | 23 | 24 | 24 | 18 | 18 | 20 | 83 | 701 | 215 | 50 | 44 |
| 15 | 25 | 24 | 24 | 23 | 19 | 18 | 19 | 80 | 671 | 192 | 67 | 43 |
| 16 | 27 | 24 | 24 | 23 | 19 | 18 | 19 | 77 | 636 | 155 | 57 | 42 |
| 17 | 27 | 24 | 24 | 22 | 19 | 18 | 20 | 76 | 630 | 140 | 53 | 42 |
| 18 | 28 | 25 | 24 | 22 | 19 | 20 | 20 | 73 | 639 | 155 | 49 | 39 |
| 19 | 31 | 25 | 24 | 21 | 19 | 18 | 22 | 79 | 630 | 147 | 47 | 36 |
| 20 | 30 | 25 | 24 | 20 | 20 | 19 | 29 | 86 | 612 | 139 | 47 | 42 |
| 21 | 32 | 25 | 24 | 19 | 20 | 19 | 41 | 120 | 614 | 132 | 45 | 40 |
| 22 | 28 | 25 | 25 | 18 | 20 | 19 | 49 | 188 | 607 | 124 | 43 | 39 |
| 23 | 30 | 25 | 25 | 19 | 20 | 19 | 54 | 266 | 626 | 121 | 43 | 38 |
| 24 | 32 | 25 | 25 | 19 | 18 | 19 | 47 | 303 | 648 | 118 | 48 | 38 |
| 25 | 31 | 25 | 25 | 19 | 19 | 19 | 39 | 272 | 631 | 112 | 64 | 38 |
| 26 | 32 | 25 | 24 | 19 | 18 | 19 | 40 | 228 | 614 | 110 | 71 | 38 |
| 27 | 32 | 25 | 24 | 19 | 19 | 18 | 41 | 200 | 597 | 104 | 51 | 38 |
| 28 | 26 | 25 | 25 | 19 | 19 | 19 | 47 | 238 | 551 | 98 | 47 | 37 |
| 29 | 29 | 25 | 25 | 19 | 19 | 20 | 55 | 264 | 491 | 77 | 44 | 34 |
| 30 | 26 | 25 | 24 | 19 | --- | 19 | 61 | 221 | 485 | 79 | 45 | 35 |
| 31 | 25 | --- | 23 | 19 | --- | 20 | --- | 260 | --- | 72 | 53 | --- |
| TOTAL | 854 | 741 | 757 | 669 | 552 | 587 | 876 | 4298 | 16675 | 6562 | 1627 | 1293 |
| MEAN | 27.5 | 24.7 | 24.4 | 21.6 | 19.0 | 18.9 | 29.2 | 139 | 556 | 212 | 52.5 | 43.1 |
| MAX | 32 | 27 | 25 | 24 | 20 | 20 | 61 | 303 | 703 | 505 | 71 | 67 |
| MIN | 24 | 21 | 23 | 18 | 18 | 18 | 19 | 50 | 268 | 72 | 43 | 34 |
| AC-FT | 1690 | 1470 | 1500 | 1330 | 1090 | 1160 | 1740 | 8530 | 33070 | 13020 | 3230 | 2560 |
| a | 180 | 119 | 64 | 39 | 28 | 22 | 38 | 29 | 0 | 409 | 395 | 0 |

CAL YR 1979 TOTAL 35763 MEAN 98.0 MAX 700 MIN 16 AC-FT 70940
WTR YR 1980 TOTAL 35491 MEAN 97.0 MAX 703 MIN 18 AC-FT 70400

a DIVERSIONS, IN ACRE-FEET, THROUGH AUGUST P. GUMLICK TUNNEL, FURNISHED BY COLORADO DIVISION OF WATER RESOURCES.

## 09037500 WILLIAMS FORK NEAR PARSHALL, CO

LOCATION.--Lat 40°00'01", long 106°10'45", in SW¼SW¼ sec.31, T.1 N., R.78 W., Grand County, Hydrologic Unit 14010001, on right bank 150 ft (46 m) downstream from bridge on State Highway 286, 3.7 mi (6.0 km) downstream from Skylark Creek, 3.9 mi (6.3 km) south of Parshall, and 4.2 mi (6.8 km) upstream from Williams Fork Reservoir Dam.

DRAINAGE AREA.--184 mi² (477 km²).

PERIOD OF RECORD.--July 1904 to September 1924, June 1933 to current year. Records since May 10, 1940, equivalent to earlier records if diversion to August P. Gumlick Tunnel is added to flow past station. Published as "near (Hot) Sulphur Springs" 1904-12 and as Williams River near Parshall June 1933 to September 1958.

REVISED RECORDS.--WSP 1243: 1918. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,808.95 ft (2,380.168 m) (Denver Board of Water Commissioners Datum). See WSP 1733 for history of changes prior to Aug. 9, 1938.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Diversions above station for irrigation of about 1,300 acres (5.26 km²) above station and about 2,500 acres (10.1 km²) below. About 150 acres (607,000 m²) above station irrigated by diversions into the drainage area. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--67 years, 136 ft³/s (3.852 m³/s), 98,530 acre-ft/yr (121 hm³/yr), including diversion to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,620 ft³/s (74.2 m³/s) June 14, 1918, gage height, 6.05 ft (1.884 m), site and datum then in use, from rating curve extended above 1,400 ft³/s (40 m³/s); minimum daily, 4.8 ft³/s (0.14 m³/s) May 6, 8-10, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 924 ft³/s (26.2 m³/s) at 0500 June 13, gage height, 4.43 ft (1.350 m); minimum daily, 15 ft³/s (0.42 m³/s) Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 37 | 24 | 37 | 32 | 30 | 28 | 28 | 114 | 229 | 360 | 78 | 55 |
| 2 | 34 | 35 | 36 | 32 | 30 | 28 | 28 | 113 | 226 | 372 | 79 | 51 |
| 3 | 35 | 37 | 35 | 32 | 30 | 28 | 28 | 119 | 250 | 320 | 71 | 50 |
| 4 | 34 | 44 | 35 | 32 | 30 | 28 | 28 | 137 | 299 | 260 | 69 | 49 |
| 5 | 37 | 41 | 35 | 32 | 30 | 28 | 28 | 162 | 350 | 218 | 70 | 46 |
| 6 | 37 | 38 | 35 | 32 | 30 | 28 | 28 | 180 | 400 | 195 | 63 | 45 |
| 7 | 37 | 42 | 35 | 32 | 30 | 28 | 28 | 224 | 425 | 161 | 61 | 45 |
| 8 | 37 | 39 | 35 | 32 | 30 | 28 | 28 | 243 | 415 | 149 | 56 | 52 |
| 9 | 39 | 39 | 35 | 32 | 29 | 28 | 28 | 212 | 480 | 120 | 56 | 75 |
| 10 | 39 | 35 | 35 | 32 | 28 | 28 | 28 | 198 | 535 | 67 | 54 | 57 |
| 11 | 38 | 39 | 34 | 32 | 28 | 28 | 28 | 212 | 628 | 83 | 53 | 64 |
| 12 | 38 | 39 | 33 | 31 | 28 | 28 | 28 | 226 | 712 | 129 | 56 | 54 |
| 13 | 38 | 37 | 32 | 30 | 28 | 27 | 28 | 192 | 746 | 104 | 42 | 51 |
| 14 | 37 | 41 | 32 | 30 | 28 | 26 | 28 | 158 | 730 | 84 | 15 | 48 |
| 15 | 37 | 43 | 32 | 30 | 28 | 26 | 29 | 145 | 699 | 64 | 21 | 46 |
| 16 | 40 | 43 | 32 | 30 | 28 | 26 | 31 | 133 | 640 | 32 | 41 | 45 |
| 17 | 42 | 48 | 32 | 30 | 28 | 26 | 36 | 139 | 610 | 18 | 65 | 44 |
| 18 | 42 | 48 | 32 | 30 | 28 | 26 | 44 | 129 | 598 | 17 | 54 | 44 |
| 19 | 42 | 48 | 32 | 30 | 28 | 27 | 50 | 137 | 574 | 17 | 51 | 40 |
| 20 | 44 | 45 | 32 | 30 | 28 | 28 | 59 | 145 | 535 | 20 | 52 | 49 |
| 21 | 48 | 40 | 32 | 30 | 28 | 28 | 73 | 188 | 525 | 19 | 48 | 50 |
| 22 | 41 | 40 | 32 | 30 | 28 | 28 | 85 | 260 | 520 | 19 | 46 | 46 |
| 23 | 41 | 40 | 32 | 30 | 28 | 28 | 92 | 344 | 520 | 18 | 44 | 45 |
| 24 | 47 | 40 | 32 | 30 | 28 | 28 | 89 | 415 | 550 | 19 | 49 | 45 |
| 25 | 45 | 40 | 32 | 30 | 28 | 28 | 78 | 356 | 525 | 19 | 62 | 45 |
| 26 | 45 | 38 | 32 | 30 | 28 | 28 | 83 | 282 | 490 | 17 | 71 | 44 |
| 27 | 46 | 37 | 32 | 30 | 28 | 28 | 85 | 212 | 460 | 16 | 54 | 43 |
| 28 | 40 | 37 | 32 | 30 | 28 | 28 | 95 | 257 | 415 | 47 | 48 | 43 |
| 29 | 41 | 37 | 32 | 30 | 28 | 28 | 109 | 282 | 336 | 91 | 51 | 41 |
| 30 | 39 | 37 | 32 | 30 | --- | 28 | 123 | 220 | 316 | 91 | 53 | 40 |
| 31 | 34 | --- | 32 | 30 | --- | 28 | --- | 264 | --- | 86 | 62 | --- |
| TOTAL | 1231 | 1191 | 1028 | 953 | 829 | 856 | 1553 | 6398 | 14738 | 3232 | 1695 | 1452 |
| MEAN | 39.7 | 39.7 | 33.2 | 30.7 | 28.6 | 27.6 | 51.8 | 206 | 491 | 104 | 54.7 | 48.4 |
| MAX | 48 | 48 | 37 | 32 | 30 | 28 | 123 | 415 | 746 | 372 | 79 | 75 |
| MIN | 34 | 24 | 32 | 30 | 28 | 26 | 28 | 113 | 226 | 16 | 15 | 40 |
| AC-FT | 2440 | 2360 | 2040 | 1890 | 1640 | 1700 | 3080 | 12690 | 29230 | 6410 | 3360 | 2880 |

CAL YR 1979 TOTAL 38606 MEAN 106 MAX 856 MIN 15 AC-FT 76570
WTR YR 1980 TOTAL 35156 MEAN 96.1 MAX 746 MIN 15 AC-FT 69730

## 09038000 WILLIAMS FORK RESERVOIR NEAR PARSHALL, CO

LOCATION.--Lat 40°02'06", long 106°12'17", in SE¼ sec.23, T.1 N., R.79 W., Grand County, Hydrologic Unit 14010001, at dam on Williams Fork, 2.1 mi (3.4 km) upstream from mouth, and 2.2 mi (3.5 km) southwest of Parshall.

DRAINAGE AREA.--230 mi² (596 km²).

PERIOD OF RECORD.--April 1939 to current year. Prior to October 1948, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city engineer of Denver); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by concrete-arch dam completed in October 1938; storage began April 1939; dam was enlarged Dec. 5, 1956, to Apr. 22, 1959. Enlarged capacity, 96,820 acre-ft (119 hm³) between elevations 7,634 ft (2,326.8 m), invert of outlet, and 7,811 ft (2,380.8 m), top of radial gates on spillway. No dead storage. Figures given represent usable contents. Reservoir is used for power development and to store water to compensate for water diverted through August P. Gumlick Tunnel. Water is released during periods of low flow in Colorado to supply decreed prior water rights. Records furnished by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 97,130 acre-ft (120 hm³) July 9, 1962, elevation, 7,811.19 ft (2,380.851 m); no contents at times in 1958 (construction) and 1966 (drained for repairs).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 83,780 acre-ft (103 hm³) Aug. 9, 12, elevation, 7,802.45 ft (2,378.187 m); minimum, 44,280 acre-ft (54.6 hm³) Apr. 15, 16, elevation, 7,768.46 ft (2,367.827 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Date | Elevation | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,789.81 | 66,990 | - |
| Oct. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,778.91 | 54,610 | -12,380 |
| Nov. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,774.83 | 50,420 | -4,190 |
| Dec. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,770.33 | 46,040 | -4,380 |
| CAL YR 1979 . . . . . . . . . . . . . . . . . . . . . . . . . |  |  | +1,570 |
| Jan. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,769.70 | 45,440 | -600 |
| Feb. 29. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,769.29 | 45,060 | -380 |
| Mar. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,768.72 | 44,530 | -530 |
| Apr. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,771.60 | 47,250 | +2,720 |
| May 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,769.98 | 45,700 | -1,550 |
| June 30. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,795.00 | 73,580 | +27,880 |
| July 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,801.80 | 82,850 | +9,270 |
| Aug. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,799.28 | 79,320 | -3,530 |
| Sept. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,795.96 | 74,840 | -4,480 |
| WTR YR 1980 . . . . . . . . . . . . . . . . . . . . . . . . . |  |  | +7,850 |

## 09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO

LOCATION.--Lat 40°02'07", long 106°12'17", in SE¼ sec.23, T.1 N., R.79 W., Grand County, Hydrologic Unit 14010001, on left bank 400 ft (120 m) downstream from Williams Fork Reservoir, 2.1 mi (3.4 km) upstream from mouth, and 2.1 mi (3.4 km) southwest of Parshall.

DRAINAGE AREA.--230 mi² (596 km²).

PERIOD OF RECORD.--October 1948 to September 1954, August 1958 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1958, published as Williams River below Williams Fork Reservoir.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,615.0 ft (2,321.05 m) (Denver Board of Water Commissioners Datum). See WSP 1713 or 1733 for history of changes prior to Oct. 21, 1959.

REMARKS.--Records good. Flow regulated by Williams Fork Reservoir (station 09038000). Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Diversions above station for irrigation of about 3,200 acres (13.0 km²) above station and about 100 acres (405,000 m²) below. About 450 acres (1.82 km²) above station irrigated by diversion into the drainage area. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--28 years, 122 ft³/s (3.455 m³/s), 88,390 acre-ft/yr (109 hm³/yr), adjusted for storage in Williams Fork Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft³/s (74.8 m³/s) June 20, 1953, gage height, 8.50 ft (2.591 m), site and datum then in use, from rating curve extended above 1,500 ft³/s (42 m³/s); no flow for part of Apr. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 282 ft³/s (7.99 m³/s) at 2000 May 26, gage height, 2.53 ft (0.771 m); minimum daily, 15 ft³/s (0.42 m³/s) Apr. 26-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 257 | 175 | 119 | 67 | 47 | 44 | 44 | 189 | 28 | 21 | 24 | 23 |
| 2 | 259 | 116 | 117 | 62 | 47 | 43 | 44 | 263 | 157 | 21 | 24 | 161 |
| 3 | 260 | 115 | 119 | 62 | 47 | 42 | 45 | 261 | 162 | 21 | 24 | 235 |
| 4 | 260 | 115 | 119 | 59 | 47 | 43 | 45 | 260 | 163 | 21 | 24 | 235 |
| 5 | 258 | 116 | 120 | 57 | 46 | 43 | 45 | 260 | 163 | 21 | 24 | 213 |
| 6 | 256 | 117 | 121 | 57 | 46 | 43 | 45 | 262 | 158 | 20 | 25 | 23 |
| 7 | 257 | 117 | 121 | 57 | 45 | 43 | 45 | 265 | 27 | 20 | 25 | 23 |
| 8 | 257 | 117 | 120 | 54 | 46 | 43 | 45 | 266 | 27 | 20 | 25 | 139 |
| 9 | 255 | 117 | 119 | 52 | 46 | 44 | 45 | 267 | 154 | 20 | 25 | 139 |
| 10 | 256 | 117 | 119 | 52 | 47 | 44 | 45 | 267 | 152 | 20 | 25 | 139 |
| 11 | 259 | 117 | 119 | 52 | 47 | 44 | 45 | 267 | 151 | 21 | 41 | 139 |
| 12 | 262 | 117 | 119 | 52 | 47 | 44 | 44 | 268 | 154 | 21 | 132 | 138 |
| 13 | 261 | 118 | 119 | 52 | 46 | 44 | 44 | 269 | 149 | 21 | 165 | 23 |
| 14 | 261 | 119 | 120 | 51 | 46 | 44 | 44 | 269 | 28 | 21 | 166 | 23 |
| 15 | 262 | 119 | 121 | 51 | 45 | 44 | 44 | 269 | 28 | 21 | 168 | 139 |
| 16 | 236 | 118 | 121 | 51 | 45 | 43 | 44 | 271 | 144 | 21 | 171 | 136 |
| 17 | 57 | 118 | 120 | 51 | 44 | 43 | 44 | 270 | 143 | 21 | 171 | 139 |
| 18 | 57 | 117 | 120 | 51 | 44 | 43 | 43 | 272 | 142 | 21 | 170 | 139 |
| 19 | 82 | 117 | 120 | 51 | 44 | 45 | 43 | 274 | 141 | 21 | 170 | 145 |
| 20 | 262 | 117 | 121 | 52 | 43 | 46 | 43 | 275 | 139 | 21 | 170 | 76 |
| 21 | 262 | 117 | 121 | 52 | 43 | 45 | 33 | 276 | 22 | 21 | 169 | 75 |
| 22 | 261 | 117 | 121 | 52 | 44 | 45 | 16 | 277 | 22 | 21 | 169 | 158 |
| 23 | 262 | 117 | 120 | 52 | 43 | 45 | 16 | 278 | 138 | 21 | 168 | 140 |
| 24 | 263 | 117 | 119 | 51 | 43 | 46 | 16 | 280 | 136 | 21 | 170 | 141 |
| 25 | 264 | 117 | 119 | 50 | 43 | 46 | 16 | 279 | 136 | 21 | 169 | 143 |
| 26 | 265 | 120 | 119 | 49 | 43 | 44 | 15 | 279 | 135 | 21 | 170 | 149 |
| 27 | 266 | 121 | 119 | 49 | 44 | 44 | 15 | 281 | 133 | 21 | 170 | 78 |
| 28 | 266 | 119 | 119 | 47 | 44 | 44 | 15 | 281 | 22 | 21 | 170 | 78 |
| 29 | 266 | 119 | 119 | 47 | 44 | 44 | 15 | 279 | 21 | 21 | 170 | 162 |
| 30 | 268 | 119 | 120 | 47 | --- | 44 | 15 | 278 | 21 | 21 | 169 | 164 |
| 31 | 270 | --- | 116 | 47 | --- | 45 | --- | 275 | --- | 23 | 155 | --- |
| TOTAL | 7487 | 3582 | 3706 | 1636 | 1306 | 1364 | 1058 | 8327 | 3196 | 648 | 3618 | 3715 |
| MEAN | 242 | 119 | 120 | 52.8 | 45.0 | 44.0 | 35.3 | 269 | 107 | 20.9 | 117 | 124 |
| MAX | 270 | 175 | 121 | 67 | 47 | 46 | 45 | 281 | 163 | 23 | 171 | 235 |
| MIN | 57 | 115 | 116 | 47 | 43 | 42 | 15 | 189 | 21 | 20 | 24 | 23 |
| AC-FT | 14850 | 7100 | 7350 | 3250 | 2590 | 2710 | 2100 | 16520 | 6340 | 1290 | 7180 | 7370 |

CAL YR 1979 TOTAL 44588 MEAN 122 MAX 128 MIN 11 AC-FT 88440
WTR YR 1980 TOTAL 39643 MEAN 108 MAX 281 MIN 15 AC-FT 78630

## 09039000 TROUBLESOME CREEK NEAR PEARMONT, CO

LOCATION.--Lat 40°13'03", long 106°18'45", in SE¼ sec.14, T.3 N., R.80 W., Grand County, Hydrologic Unit 14010001, on left bank 45 ft (14 m) downstream from small tributary, 3 mi (5 km) north of Pearmont, 4 mi (6 km) downstream from Rabbit Ear Creek, 5.2 mi (8.4 km) upstream from East Fork, and 12 mi (19 km) northeast of Kremmling.

DRAINAGE AREA.--44.6 $mi^2$ (115.5 $km^2$).

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,049 ft (2,453.3 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. One diversion above station for irrigation of about 250 acres (1.01 $km^2$) below. Flow partly regulated during irrigation season by one reservoir, capacity, 1,070 acre-ft (1.32 $hm^3$) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--27 years, 29.6 $ft^3/s$ (0.838 $m^3/s$), 21,450 acre-ft/yr (26.4 $hm^3/yr$).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 507 $ft^3/s$ (14.4 $m^3/s$) June 20, 1978, gage height, 2.63 ft (0.802 m); maximum gage height, 3.93 ft (1.198 m) Mar. 31, 1965 (backwater from ice); minimum daily discharge, 4.5 $ft^3/s$ (0.13 $m^3/s$) Dec. 20-24, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 266 $ft^3/s$ (7.53 $m^3/s$) at 0400 May 24, gage height, 2.25 ft (0.686 m); maximum gage height, 2.60 ft (0.792 m) at 0800 Mar. 11 (backwater from ice); minimum daily discharge, 13 $ft^3/s$ (0.37 $m^3/s$) Mar. 11, 13, 14, Sept. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 19 | 19 | 15 | 18 | 22 | 20 | 37 | 126 | 61 | 20 | 17 |
| 2 | 16 | 19 | 19 | 15 | 18 | 22 | 20 | 36 | 115 | 63 | 19 | 17 |
| 3 | 16 | 19 | 19 | 15 | 18 | 21 | 20 | 39 | 116 | 56 | 19 | 16 |
| 4 | 16 | 19 | 19 | 15 | 18 | 21 | 20 | 42 | 122 | 48 | 19 | 16 |
| 5 | 16 | 19 | 19 | 15 | 17 | 21 | 19 | 44 | 137 | 45 | 19 | 16 |
| 6 | 16 | 19 | 19 | 15 | 17 | 20 | 19 | 48 | 154 | 39 | 19 | 16 |
| 7 | 16 | 18 | 19 | 15 | 17 | 20 | 19 | 52 | 156 | 38 | 19 | 16 |
| 8 | 16 | 17 | 19 | 15 | 17 | 14 | 19 | 53 | 157 | 37 | 18 | 16 |
| 9 | 16 | 18 | 18 | 15 | 17 | 19 | 19 | 52 | 160 | 35 | 18 | 17 |
| 10 | 16 | 18 | 18 | 15 | 18 | 14 | 19 | 51 | 169 | 34 | 17 | 16 |
| 11 | 17 | 19 | 17 | 15 | 18 | 13 | 19 | 53 | 170 | 32 | 17 | 16 |
| 12 | 17 | 19 | 15 | 15 | 18 | 18 | 19 | 65 | 164 | 31 | 16 | 16 |
| 13 | 17 | 19 | 19 | 15 | 18 | 13 | 19 | 86 | 154 | 30 | 16 | 16 |
| 14 | 17 | 19 | 20 | 15 | 18 | 13 | 19 | 76 | 144 | 29 | 16 | 16 |
| 15 | 17 | 19 | 18 | 15 | 18 | 18 | 19 | 75 | 134 | 28 | 20 | 15 |
| 16 | 18 | 19 | 18 | 15 | 17 | 17 | 19 | 73 | 123 | 27 | 18 | 16 |
| 17 | 18 | 19 | 17 | 15 | 17 | 14 | 19 | 75 | 113 | 26 | 17 | 15 |
| 18 | 18 | 19 | 17 | 15 | 17 | 15 | 20 | 73 | 102 | 28 | 16 | 15 |
| 19 | 18 | 19 | 19 | 15 | 17 | 16 | 22 | 77 | 95 | 27 | 16 | 14 |
| 20 | 19 | 19 | 21 | 15 | 16 | 19 | 24 | 89 | 89 | 29 | 17 | 15 |
| 21 | 19 | 19 | 21 | 15 | 16 | 20 | 29 | 113 | 82 | 33 | 16 | 14 |
| 22 | 18 | 19 | 19 | 15 | 16 | 17 | 29 | 103 | 75 | 32 | 16 | 14 |
| 23 | 19 | 19 | 17 | 15 | 16 | 17 | 28 | 175 | 70 | 32 | 16 | 14 |
| 24 | 19 | 19 | 16 | 15 | 16 | 17 | 29 | 209 | 65 | 32 | 17 | 14 |
| 25 | 19 | 19 | 16 | 15 | 18 | 17 | 28 | 172 | 66 | 31 | 17 | 14 |
| 26 | 19 | 19 | 15 | 15 | 20 | 17 | 29 | 145 | 64 | 29 | 17 | 14 |
| 27 | 19 | 19 | 15 | 15 | 22 | 18 | 30 | 138 | 61 | 28 | 17 | 14 |
| 28 | 18 | 19 | 15 | 15 | 22 | 19 | 34 | 153 | 57 | 28 | 17 | 13 |
| 29 | 19 | 19 | 15 | 15 | 22 | 19 | 39 | 156 | 56 | 25 | 17 | 13 |
| 30 | 18 | 19 | 15 | 15 | --- | 19 | 40 | 145 | 59 | 21 | 17 | 13 |
| 31 | 19 | --- | 15 | 16 | --- | 20 | --- | 130 | --- | 21 | 17 | --- |
| TOTAL | 543 | 565 | 548 | 466 | 517 | 550 | 708 | 2835 | 3355 | 1055 | 540 | 454 |
| MEAN | 17.5 | 18.8 | 17.7 | 15.0 | 17.8 | 17.7 | 23.6 | 91.5 | 112 | 34.0 | 17.4 | 15.1 |
| MAX | 19 | 19 | 21 | 16 | 22 | 22 | 40 | 209 | 170 | 63 | 20 | 17 |
| MIN | 16 | 17 | 15 | 15 | 16 | 13 | 19 | 36 | 56 | 21 | 16 | 13 |
| AC-FT | 1080 | 1120 | 1090 | 924 | 1030 | 1090 | 1400 | 5620 | 6650 | 2090 | 1070 | 901 |

CAL YR 1979 TOTAL 16829.0 MEAN 46.1 MAX 360 MIN 7.0 AC-FT 33380
WTR YR 1980 TOTAL 12136.0 MEAN 33.2 MAX 209 MIN 13 AC-FT 24070

## 09040000 EAST FORK TROUBLESOME CREEK NEAR TROUBLESOME, CO

LOCATION.--Lat 40°09'27", long 106°16'58", in NW¼ sec.7, T.2 N., R.79 W., Grand County, Hydrologic Unit 14010001, on right bank 400 ft (120 m) upstream from mouth and 6.5 mi (10.5 km) north of Troublesome.

DRAINAGE AREA.--76.0 mi² (196.8 km²).

PERIOD OF RECORD.--April 1937 to September 1943, October 1953 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7.670 ft (2.338 m), from topographic map. See WSP 1733 for history of changes prior to Oct. 1, 1953. Oct. 1, 1953, to July 21, 1966, at site 100 ft (30 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--33 years, 28.7 ft³/s (0.813 m³/s), 20.790 acre-ft/yr (25.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 795 ft³/s (22.5 m³/s) May 25, 1978, gage height, 5.66 ft (1.725 m); minimum daily, 0.20 ft³/s (0.006 m³/s) Oct. 3, 1941, Sept. 2, 3, 26, 27, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 515 ft³/s (14.6 m³/s) at 2400 May 23, gage height, 5.29 ft (1.612 m); only peak above base of 170 ft³/s (4.8 m³/s); minimum daily, 1.6 ft³/s (0.045 m³/s) Nov. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.7 | 1.9 | 5.5 | 5.4 | 6.0 | 6.7 | 6.6 | 65 | 195 | 20 | 7.1 | 12 |
| 2 | 5.6 | 1.6 | 5.4 | 5.5 | 5.7 | 6.9 | 5.7 | 59 | 193 | 23 | 6.5 | 11 |
| 3 | 5.7 | 2.0 | 5.9 | 5.7 | 5.0 | 7.2 | 5.7 | 62 | 187 | 24 | 6.3 | 9.8 |
| 4 | 5.5 | 2.9 | 6.2 | 5.9 | 5.6 | 6.1 | 5.8 | 70 | 194 | 20 | 6.1 | 9.0 |
| 5 | 5.7 | 6.8 | 6.2 | 5.7 | 5.5 | 5.5 | 5.4 | 82 | 207 | 18 | 5.7 | 8.0 |
| 6 | 5.8 | 8.8 | 6.3 | 5.2 | 5.6 | 5.3 | 6.3 | 97 | 211 | 16 | 5.9 | 7.4 |
| 7 | 5.9 | 6.9 | 6.4 | 5.6 | 5.7 | 5.4 | 5.8 | 115 | 202 | 16 | 5.3 | 6.7 |
| 8 | 5.8 | 7.0 | 6.5 | 5.8 | 5.5 | 5.2 | 6.1 | 136 | 185 | 15 | 4.7 | 6.0 |
| 9 | 5.5 | 6.4 | 6.0 | 5.8 | 5.9 | 5.5 | 6.0 | 135 | 173 | 15 | 4.6 | 5.5 |
| 10 | 5.4 | 6.0 | 6.1 | 5.8 | 6.4 | 5.3 | 6.6 | 131 | 164 | 14 | 4.7 | 5.0 |
| 11 | 5.4 | 6.0 | 5.9 | 7.4 | 6.6 | 6.0 | 6.0 | 131 | 156 | 13 | 4.1 | 5.0 |
| 12 | 5.4 | 6.0 | 6.1 | 6.0 | 7.0 | 6.2 | 6.5 | 155 | 148 | 13 | 3.7 | 5.0 |
| 13 | 5.4 | 6.0 | 6.4 | 5.6 | 7.5 | 6.0 | 7.0 | 132 | 132 | 14 | 3.8 | 5.0 |
| 14 | 5.2 | 6.0 | 6.5 | 5.2 | 7.5 | 5.9 | 7.0 | 116 | 103 | 13 | 4.0 | 5.0 |
| 15 | 4.7 | 6.0 | 6.9 | 5.1 | 7.4 | 6.3 | 7.6 | 108 | 92 | 12 | 8.8 | 5.0 |
| 16 | 4.4 | 6.0 | 7.2 | 5.1 | 7.1 | 6.2 | 11 | 103 | 81 | 11 | 13 | 5.0 |
| 17 | 4.4 | 6.0 | 7.2 | 5.3 | 6.6 | 6.6 | 9.3 | 111 | 75 | 11 | 9.7 | 5.0 |
| 18 | 4.4 | 6.0 | 6.8 | 5.4 | 6.0 | 7.0 | 11 | 102 | 69 | 11 | 7.0 | 5.0 |
| 19 | 2.4 | 6.0 | 7.2 | 5.4 | 5.7 | 6.9 | 15 | 109 | 65 | 10 | 5.3 | 5.0 |
| 20 | 2.9 | 6.0 | 7.3 | 5.4 | 5.4 | 6.5 | 21 | 134 | 62 | 11 | 4.8 | 5.0 |
| 21 | 4.1 | 6.0 | 7.6 | 5.4 | 5.4 | 6.0 | 44 | 189 | 52 | 11 | 4.4 | 4.8 |
| 22 | 4.6 | 6.0 | 8.3 | 5.4 | 5.1 | 5.7 | 53 | 292 | 48 | 9.9 | 4.2 | 4.6 |
| 23 | 2.8 | 6.0 | 8.7 | 5.4 | 5.1 | 5.6 | 53 | 410 | 38 | 9.2 | 4.0 | 4.3 |
| 24 | 2.9 | 6.0 | 7.9 | 5.4 | 5.9 | 5.7 | 51 | 474 | 29 | 9.3 | 4.3 | 4.0 |
| 25 | 2.9 | 6.0 | 7.7 | 5.4 | 13 | 5.7 | 46 | 376 | 27 | 16 | 5.7 | 3.7 |
| 26 | 3.0 | 6.0 | 7.5 | 5.4 | 6.2 | 5.4 | 44 | 278 | 29 | 12 | 9.0 | 3.5 |
| 27 | 3.0 | 6.0 | 7.4 | 5.4 | 6.4 | 5.4 | 45 | 245 | 32 | 9.3 | 6.7 | 3.5 |
| 28 | 5.1 | 6.0 | 7.0 | 5.4 | 7.1 | 5.4 | 51 | 263 | 26 | 8.0 | 5.4 | 3.5 |
| 29 | 6.9 | 6.0 | 6.4 | 5.4 | 7.6 | 5.1 | 64 | 266 | 28 | 7.4 | 4.8 | 3.5 |
| 30 | 6.6 | 5.8 | 6.2 | 5.4 | --- | 5.6 | 72 | 236 | 23 | 7.5 | 5.8 | 3.5 |
| 31 | 7.1 | --- | 5.7 | 5.4 | --- | 5.6 | --- | 212 | --- | 7.7 | 8.7 | --- |
| TOTAL | 150.2 | 170.1 | 208.4 | 171.7 | 185.5 | 183.9 | 684.4 | 5394 | 3226 | 407.3 | 184.1 | 169.3 |
| MEAN | 4.85 | 5.67 | 6.72 | 5.54 | 6.40 | 5.93 | 22.8 | 174 | 108 | 13.1 | 5.94 | 5.64 |
| MAX | 7.1 | 8.8 | 8.7 | 7.4 | 13 | 7.2 | 72 | 474 | 211 | 24 | 13 | 12 |
| MIN | 2.4 | 1.6 | 5.4 | 5.1 | 5.0 | 5.1 | 5.4 | 59 | 23 | 7.4 | 3.7 | 3.5 |
| AC-FT | 298 | 337 | 413 | 341 | 368 | 365 | 1360 | 10700 | 6400 | 808 | 365 | 336 |

CAL YR 1979 TOTAL 15426.5 MEAN 42.3 MAX 541 MIN 1.6 AC-FT 30600
WTR YR 1980 TOTAL 11134.9 MEAN 30.4 MAX 474 MIN 1.6 AC-FT 22090

## 09041900 MONTE CRISTO DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'51", long 106°04'15", in NE¼SE¼ sec. 2, T. 8 S., R. 78 W., Summit County, Hydrologic Unit 14010002, on left bank at entrance to Hoosier Pass tunnel, 1,800 ft (550 m) downstream from diversion point, 1.4 mi (2.3 km) northwest of Hoosier Pass, and 7 mi (11 km) southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (3,348.5 m), from topographic map.

REMARKS.--Records good. This is a transmountain diversion from Monte Cristo Creek in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion point is in SW¼NE¼ sec. 2, T. 8 S., R. 78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 73 ft³/s (2.07 m³/s) Aug. 12-14, 1980; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 34 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.1 | 5.9 | 1.4 | .00 |
| 2 | 32 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.3 | 1.2 | 1.3 | .00 |
| 3 | 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.3 | 1.2 | 1.3 | .00 |
| 4 | .72 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | 1.0 | 1.2 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 12 | .76 | 1.2 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 10 | 6.2 | 1.2 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.5 | 13 | 19 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 13 | 9.1 | 44 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 16 | 44 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 23 | 42 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.5 | 19 | 46 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 18 | 73 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 18 | 73 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 12 | 73 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.7 | 67 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.5 | 6.9 | 64 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.5 | 7.1 | 62 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.5 | 12 | 59 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | 16 | 56 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 10 | 17 | 51 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.8 | 17 | 46 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.5 | 17 | 40 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.5 | 17 | 13 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.3 | 20 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.8 | 10 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 10 | 2.4 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 12 | 1.7 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 1.5 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.8 | 14 | 1.5 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 7.3 | 14 | 1.4 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 7.9 | --- | 1.4 | .00 | --- |
| TOTAL | 95.72 | .00 | .00 | .00 | .00 | .00 | .00 | 22.00 | 269.10 | 300.96 | 879.60 | .00 |
| MEAN | 3.09 | .000 | .000 | .000 | .000 | .000 | .000 | .71 | 8.97 | 9.71 | 28.4 | .000 |
| MAX | 34 | .00 | .00 | .00 | .00 | .00 | .00 | 7.9 | 14 | 23 | 73 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .76 | .00 | .00 |
| AC-FT | 190 | .00 | .00 | .00 | .00 | .00 | .00 | 44 | 534 | 597 | 1740 | .00 |

CAL YR 1979 TOTAL 2167.76 MEAN 5.94 MAX 37 MIN .00 AC-FT 4300
WTR YR 1980 TOTAL 1567.38 MEAN 4.28 MAX 73 MIN .00 AC-FT 3110

## 09044300 BEMROSE-HOOSIER DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'50", long 106°04'13", in NE¼SE¼ sec.2, T.8 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank at entrance to Hoosier Pass tunnel, 1.4 mi (2.3 km) northwest of Hoosier Pass, 1.6 mi (2.6 km) downstream from diversion point on Bemrose Creek, and 7 mi (11 km) southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (3,348.5 m), from topographic map.

REMARKS.--Records good. This is a transmountain diversion from Bemrose and Hoosier Creeks in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion points are in SW¼SW¼ sec.6, T.8 S., R.77 W., and in sec.12, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 44 $ft^3/s$ (1.25 $m^3/s$) June 21, 1965; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.6 | 20 | 2.6 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.2 | 21 | 2.5 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.3 | 19 | 2.3 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | 16 | 2.2 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 14 | 2.5 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 15 | 13 | 2.9 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 15 | 12 | 2.7 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 20 | 12 | 3.0 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 28 | 10 | 2.9 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 36 | 10 | 2.6 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 42 | 10 | 2.2 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 8.9 | 1.6 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.0 | 8.4 | 1.6 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.9 | 7.8 | 1.9 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.3 | 7.2 | 2.2 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.3 | 6.5 | .96 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.3 | 6.1 | .48 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 6.1 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 25 | 5.7 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | 5.2 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 23 | 4.8 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | 4.5 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | 4.3 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | 4.3 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 23 | 4.0 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 23 | 3.7 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 3.5 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 20 | 3.3 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.2 | 18 | 3.0 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 6.5 | 17 | 2.9 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 7.4 | --- | 2.7 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 17.10 | 519.9 | 259.9 | 37.14 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .55 | 17.3 | 8.38 | 1.20 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.4 | 42 | 21 | 3.0 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.0 | 2.7 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 34 | 1030 | 516 | 74 | .00 |

CAL YR 1979 TOTAL 1139.60 MEAN 3.12 MAX 32 MIN .00 AC-FT 2260
WTR YR 1980 TOTAL 834.04 MEAN 2.28 MAX 42 MIN .00 AC-FT 1650

## 09044800 MCCULLOUGH-SPRUCE-CRYSTAL DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'51", long 106°04'14", in NE¼SE¼ sec.2, T.8 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank at entrance to Hoosier Pass tunnel, 1.4 mi (2.3 km) northwest of Hoosier Pass, 1.6 mi (2.6 km) downstream from diversion point on McCullough Gulch, and 7 mi (11 km) southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1961, published as McCullough diversion near Hoosier Pass.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (3,348.5 m), from topographic map.

REMARKS.--Records good. This is a transmountain diversion from McCullough Gulch and Spruce and Crystal Creeks in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion points are in secs.14, 23, and 26, T.7 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 123 ft³/s (3.48 m³/s) June 20, 1968; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 17 | .72 | 18 | .30 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | .72 | 17 | .25 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.0 | .72 | 17 | .25 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.6 | .72 | 16 | .25 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.4 | .61 | 14 | .20 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 4.5 | .61 | 12 | .20 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.2 | .61 | 12 | .20 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.8 | .61 | 12 | .20 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.4 | .61 | 12 | .20 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.4 | .61 | 12 | .20 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.7 | .61 | 11 | .20 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .94 | .61 | 7.6 | .10 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .83 | .61 | 3.2 | .10 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .83 | .61 | 1.9 | .10 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .72 | .61 | 1.4 | .10 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .72 | .61 | 1.2 | .10 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .72 | .61 | 1.0 | .10 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .61 | .61 | .94 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .50 | .61 | .94 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .50 | .61 | .83 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .61 | 5.6 | .61 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .61 | 25 | .50 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .61 | 26 | .50 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .50 | 24 | .50 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .50 | 21 | .50 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .61 | 20 | .50 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .61 | 19 | .50 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .50 | 18 | .50 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.8 | .61 | 17 | .50 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 12 | .61 | 17 | .45 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 14 | --- | 19 | .35 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 29.80 | 74.14 | 224.24 | 177.42 | 3.05 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .96 | 2.47 | 7.23 | 5.72 | .10 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 17 | 26 | 18 | .30 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .50 | .61 | .35 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 59 | 147 | 445 | 352 | 6.0 |

| | | | | | |
|---|---|---|---|---|---|
| CAL YR 1979 | TOTAL 1706.32 | MEAN 4.67 | MAX 96 | MIN .00 | AC-FT 3380 |
| WTR YR 1980 | TOTAL 508.65 | MEAN 1.39 | MAX 26 | MIN .00 | AC-FT 1010 |

## 09046600 BLUE RIVER NEAR DILLON, CO

LOCATION.--Lat 39°32'55", long 106°02'19", in NW¼NE¼ sec.7, T.6 S., R.77 W., Summit County, Hydrologic Unit 14010002, on right bank 0.2 mi (0.3 km) downstream from Swan River and 5.5 mi (8.8 km) south of Dillon.

DRAINAGE AREA.--119 mi² (308 km²).

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,120 ft (2,780 m), from topographic map.

REMARKS.--Records good. Transmountain diversions above station by Boreas Pass ditch and Hoosier Pass tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 98.9 ft³/s (2.801 m³/s), 71,650 acre-ft/yr (88.3 hm³/yr), including diversion to Hoosier Pass tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) June 17, 1965, gage height, 5.38 ft (1.640 m), from rating curve extended above 610 ft³/s (17 m³/s); minimum daily, 17 ft³/s (0.48 m³/s) Mar. 21, 1961, Feb. 24-26, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 868 ft³/s (24.6 m³/s) at 1700 June 13, gage height, 5.02 ft (1.530 m); minimum daily, 21 ft³/s (0.59 m³/s) Feb. 27-28, Mar. 2-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 46 | 47 | 41 | 29 | 24 | 22 | 23 | 50 | 343 | 449 | 104 | 73 |
| 2 | 45 | 46 | 41 | 28 | 24 | 21 | 23 | 53 | 350 | 500 | 100 | 70 |
| 3 | 45 | 45 | 40 | 28 | 24 | 21 | 23 | 57 | 361 | 501 | 97 | 67 |
| 4 | 44 | 44 | 39 | 28 | 24 | 21 | 23 | 63 | 392 | 437 | 95 | 63 |
| 5 | 43 | 44 | 39 | 28 | 24 | 21 | 23 | 77 | 445 | 379 | 92 | 61 |
| 6 | 44 | 45 | 39 | 28 | 24 | 21 | 23 | 96 | 497 | 355 | 89 | 59 |
| 7 | 50 | 45 | 39 | 28 | 24 | 21 | 23 | 120 | 520 | 323 | 86 | 57 |
| 8 | 59 | 45 | 39 | 28 | 23 | 22 | 23 | 136 | 524 | 312 | 84 | 57 |
| 9 | 61 | 46 | 38 | 28 | 23 | 22 | 23 | 135 | 569 | 306 | 83 | 60 |
| 10 | 59 | 46 | 38 | 27 | 23 | 22 | 24 | 133 | 644 | 288 | 82 | 72 |
| 11 | 58 | 47 | 38 | 27 | 23 | 22 | 24 | 138 | 744 | 277 | 80 | 67 |
| 12 | 54 | 47 | 37 | 27 | 23 | 22 | 24 | 148 | 820 | 292 | 76 | 88 |
| 13 | 51 | 46 | 36 | 27 | 23 | 22 | 24 | 142 | 836 | 279 | 74 | 85 |
| 14 | 49 | 45 | 36 | 27 | 22 | 22 | 24 | 129 | 813 | 263 | 74 | 79 |
| 15 | 47 | 45 | 35 | 27 | 22 | 22 | 24 | 121 | 735 | 250 | 78 | 74 |
| 16 | 47 | 44 | 35 | 27 | 22 | 22 | 25 | 119 | 651 | 232 | 85 | 71 |
| 17 | 46 | 43 | 34 | 27 | 22 | 22 | 25 | 114 | 591 | 220 | 93 | 68 |
| 18 | 45 | 43 | 34 | 27 | 22 | 22 | 25 | 113 | 576 | 211 | 88 | 67 |
| 19 | 45 | 42 | 33 | 26 | 22 | 22 | 27 | 121 | 556 | 202 | 82 | 64 |
| 20 | 45 | 43 | 33 | 26 | 22 | 23 | 28 | 137 | 529 | 191 | 78 | 60 |
| 21 | 47 | 42 | 33 | 26 | 22 | 22 | 31 | 162 | 509 | 180 | 75 | 58 |
| 22 | 47 | 43 | 33 | 26 | 22 | 23 | 34 | 232 | 490 | 166 | 72 | 57 |
| 23 | 47 | 43 | 32 | 26 | 22 | 23 | 38 | 352 | 473 | 150 | 71 | 56 |
| 24 | 47 | 43 | 32 | 25 | 22 | 22 | 41 | 444 | 475 | 138 | 69 | 54 |
| 25 | 47 | 43 | 31 | 25 | 22 | 23 | 41 | 421 | 466 | 135 | 77 | 53 |
| 26 | 47 | 43 | 31 | 25 | 22 | 23 | 38 | 370 | 464 | 133 | 108 | 52 |
| 27 | 48 | 43 | 30 | 25 | 21 | 23 | 38 | 336 | 457 | 127 | 114 | 53 |
| 28 | 48 | 43 | 30 | 25 | 21 | 23 | 40 | 341 | 432 | 119 | 105 | 52 |
| 29 | 48 | 43 | 30 | 25 | 22 | 23 | 43 | 357 | 393 | 114 | 92 | 52 |
| 30 | 48 | 42 | 30 | 25 | --- | 23 | 47 | 342 | 391 | 110 | 83 | 51 |
| 31 | 47 | --- | 29 | 24 | --- | 23 | --- | 331 | --- | 107 | 77 | --- |
| TOTAL | 1504 | 1326 | 1085 | 825 | 656 | 686 | 872 | 5890 | 16046 | 7745 | 2663 | 1920 |
| MEAN | 48.5 | 44.2 | 35.0 | 26.6 | 22.6 | 22.1 | 29.1 | 190 | 535 | 250 | 85.9 | 64.0 |
| MAX | 61 | 47 | 41 | 29 | 24 | 23 | 47 | 444 | 836 | 501 | 114 | 88 |
| MIN | 43 | 42 | 29 | 24 | 21 | 21 | 23 | 50 | 343 | 107 | 69 | 51 |
| AC-FT | 2980 | 2630 | 2150 | 1640 | 1300 | 1360 | 1730 | 11680 | 31830 | 15360 | 5280 | 3810 |

CAL YR 1979 TOTAL 37903 MEAN 104 MAX 532 MIN 21 AC-FT 75180
WTR YR 1980 TOTAL 41218 MEAN 113 MAX 836 MIN 21 AC-FT 81760

## 09047500 SNAKE RIVER NEAR MONTEZUMA, CO

LOCATION.--Lat 39°36'20", long 105°56'33", in NW¼ sec.19, T.5 S., R.76 W. (projected), Summit County, Hydrologic Unit 14010002, on right bank 200 ft (61 m) downstream from North Fork and 4.5 mi (7.2 km) northwest of Montezuma.

DRAINAGE AREA.--57.7 mi$^2$ (149 km$^2$).

PERIOD OF RECORD.--July 1942 to September 1946, October 1951 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,320 ft (2,841 m), from topographic map. Prior to Oct. 14, 1943, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Small diversions above station for irrigation and domestic use. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--33 years, 60.0 ft$^3$/s (1.699 m$^3$/s), 43,470 acre-ftyr (53.6 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft$^3$/s (35.4 m$^3$/s) June 10, 1952, gage height, 3.51 ft (1.070 m); maximum gage height, 3.88 ft (1.183 m) June 6, 1972; minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 680 ft$^3$/s (19.3 m$^3$/s) at 1900 June 11, gage height, 3.67 ft (1.119 m), only peak above base of 500 ft$^3$/s (14 m$^3$/s); minimum daily, 11 ft$^3$/s (0.31 m$^3$/s) Feb. 13-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 22 | 18 | 16 | 15 | 12 | 12 | 12 | 21 | 191 | 364 | 72 | 39 |
| 2 | 23 | 18 | 15 | 15 | 12 | 12 | 12 | 20 | 200 | 360 | 69 | 37 |
| 3 | 22 | 19 | 15 | 15 | 12 | 12 | 12 | 23 | 231 | 306 | 65 | 36 |
| 4 | 22 | 19 | 15 | 15 | 12 | 12 | 12 | 26 | 277 | 275 | 64 | 35 |
| 5 | 22 | 19 | 15 | 15 | 12 | 12 | 12 | 32 | 329 | 253 | 60 | 34 |
| 6 | 22 | 19 | 15 | 15 | 12 | 12 | 12 | 35 | 357 | 231 | 58 | 34 |
| 7 | 21 | 19 | 15 | 15 | 12 | 12 | 12 | 38 | 352 | 227 | 55 | 34 |
| 8 | 21 | 17 | 15 | 15 | 12 | 12 | 12 | 38 | 367 | 222 | 57 | 35 |
| 9 | 21 | 17 | 15 | 15 | 12 | 12 | 12 | 35 | 425 | 205 | 55 | 40 |
| 10 | 21 | 17 | 15 | 15 | 12 | 12 | 12 | 37 | 484 | 202 | 52 | 42 |
| 11 | 21 | 17 | 15 | 15 | 12 | 12 | 12 | 40 | 554 | 211 | 50 | 42 |
| 12 | 21 | 17 | 15 | 15 | 12 | 12 | 12 | 41 | 576 | 208 | 47 | 37 |
| 13 | 21 | 17 | 15 | 15 | 11 | 12 | 12 | 35 | 548 | 193 | 46 | 35 |
| 14 | 21 | 17 | 15 | 15 | 11 | 12 | 12 | 33 | 522 | 175 | 48 | 33 |
| 15 | 21 | 17 | 15 | 15 | 11 | 12 | 12 | 33 | 482 | 162 | 57 | 32 |
| 16 | 22 | 17 | 15 | 15 | 11 | 12 | 12 | 32 | 453 | 152 | 50 | 34 |
| 17 | 21 | 17 | 15 | 15 | 11 | 12 | 12 | 33 | 442 | 142 | 46 | 32 |
| 18 | 22 | 17 | 15 | 15 | 11 | 12 | 13 | 33 | 436 | 135 | 43 | 30 |
| 19 | 21 | 17 | 15 | 15 | 11 | 12 | 14 | 37 | 424 | 130 | 43 | 29 |
| 20 | 21 | 17 | 15 | 15 | 11 | 12 | 15 | 43 | 404 | 122 | 42 | 32 |
| 21 | 22 | 17 | 15 | 13 | 12 | 12 | 17 | 60 | 394 | 116 | 40 | 30 |
| 22 | 22 | 17 | 15 | 12 | 12 | 12 | 19 | 86 | 389 | 110 | 39 | 29 |
| 23 | 22 | 17 | 15 | 12 | 12 | 12 | 18 | 115 | 388 | 111 | 42 | 27 |
| 24 | 22 | 17 | 15 | 12 | 12 | 12 | 18 | 135 | 394 | 109 | 52 | 27 |
| 25 | 22 | 17 | 15 | 12 | 12 | 12 | 17 | 134 | 383 | 102 | 64 | 26 |
| 26 | 22 | 17 | 15 | 12 | 12 | 12 | 17 | 118 | 372 | 94 | 63 | 26 |
| 27 | 22 | 17 | 15 | 12 | 12 | 12 | 19 | 129 | 360 | 89 | 49 | 25 |
| 28 | 19 | 17 | 15 | 12 | 12 | 12 | 20 | 160 | 326 | 83 | 45 | 24 |
| 29 | 20 | 17 | 15 | 12 | 12 | 12 | 22 | 167 | 298 | 77 | 43 | 24 |
| 30 | 17 | 17 | 15 | 12 | --- | 12 | 23 | 165 | 312 | 77 | 42 | 23 |
| 31 | 17 | --- | 15 | 12 | --- | 12 | --- | 185 | --- | 76 | 42 | --- |
| TOTAL | 656 | 522 | 466 | 433 | 340 | 372 | 436 | 2119 | 11670 | 5316 | 1600 | 963 |
| MEAN | 21.2 | 17.4 | 15.0 | 14.0 | 11.7 | 12.0 | 14.5 | 68.4 | 389 | 171 | 51.6 | 32.1 |
| MAX | 23 | 19 | 16 | 15 | 12 | 12 | 23 | 185 | 576 | 364 | 72 | 42 |
| MIN | 17 | 17 | 15 | 12 | 11 | 12 | 12 | 20 | 191 | 76 | 39 | 23 |
| AC-FT | 1300 | 1040 | 924 | 859 | 674 | 738 | 865 | 4200 | 23150 | 10540 | 3170 | 1910 |

CAL YR 1979 TOTAL 22576.8 MEAN 61.9 MAX 445 MIN 8.0 AC-FT 44780
WTR YR 1980 TOTAL 24893.0 MEAN 68.0 MAX 576 MIN 11 AC-FT 49380

NOTE.--NO GAGE-HEIGHT RECORD NOV. 8 TO APR. 22.

## 09047700 KEYSTONE GULCH NEAR DILLON, CO

LOCATION.--Lat 39°35'40", long 105°58'19", in NE¼NE¼ sec.26, T.5 S., R.77 W., Summit County, Hydrologic Unit 14010002, on right bank 0.7 mi (1.1 km) upstream from mouth and 4.7 mi (7.6 km) southeast of Dillon.

DRAINAGE AREA.--9.10 $mi^2$ (23.6 $km^2$).

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,350 ft (2,850 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No known diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 5.59 $ft^3/s$ (0.158 $m^3/s$), 4,050 acre-ft/yr (4.99 $hm^3/yr$).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90 $ft^3/s$ (2.55 $m^3/s$) June 5, 1958, gage height, 2.75 ft (0.838 m), from rating curve extended above 28 $ft^3/s$ (0.80 $m^3/s$); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68 $ft^3/s$ (1.93 $m^3/s$) at 2000 June 11, gage height, 2.60 ft (0.792 m), only peak above base of 35 $ft^3/s$ (0.99 $m^3/s$); minimum daily, 1.5 $ft^3/s$ (0.042 $m^3/s$) Feb. 11-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.6 | 2.7 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 2.9 | 33 | 22 | 5.3 | 3.5 |
| 2 | 2.7 | 2.7 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 2.8 | 33 | 21 | 5.2 | 3.4 |
| 3 | 2.7 | 2.7 | 2.7 | 2.7 | 1.7 | 1.8 | 1.8 | 3.2 | 35 | 19 | 5.1 | 3.3 |
| 4 | 2.7 | 2.7 | 2.7 | 2.7 | 1.7 | 1.8 | 1.8 | 3.8 | 40 | 16 | 5.0 | 3.2 |
| 5 | 2.7 | 2.7 | 2.7 | 2.7 | 1.7 | 1.8 | 1.8 | 4.5 | 45 | 15 | 4.8 | 3.1 |
| 6 | 2.7 | 2.7 | 2.7 | 2.7 | 1.7 | 1.8 | 1.8 | 4.9 | 47 | 14 | 4.7 | 3.1 |
| 7 | 2.6 | 2.7 | 2.7 | 2.7 | 1.7 | 1.8 | 1.8 | 5.4 | 48 | 15 | 4.6 | 3.1 |
| 8 | 2.6 | 2.7 | 2.7 | 2.7 | 1.7 | 1.8 | 1.8 | 5.7 | 49 | 14 | 4.6 | 3.5 |
| 9 | 2.6 | 2.7 | 2.7 | 2.7 | 1.7 | 1.8 | 1.8 | 5.2 | 52 | 13 | 4.5 | 4.0 |
| 10 | 2.6 | 2.7 | 2.7 | 2.3 | 1.7 | 1.8 | 1.8 | 5.3 | 54 | 12 | 4.3 | 4.0 |
| 11 | 2.6 | 2.7 | 2.7 | 2.3 | 1.5 | 1.8 | 1.8 | 6.0 | 59 | 14 | 4.2 | 4.2 |
| 12 | 2.6 | 2.7 | 2.7 | 2.3 | 1.5 | 1.8 | 1.8 | 6.0 | 59 | 14 | 4.1 | 3.5 |
| 13 | 2.6 | 2.7 | 2.7 | 2.3 | 1.5 | 1.8 | 1.8 | 5.0 | 59 | 12 | 4.1 | 3.4 |
| 14 | 2.6 | 2.7 | 2.7 | 2.3 | 1.5 | 1.8 | 1.8 | 4.8 | 57 | 11 | 4.1 | 3.2 |
| 15 | 2.6 | 2.7 | 2.7 | 2.3 | 1.5 | 1.8 | 1.8 | 4.6 | 52 | 9.5 | 5.2 | 3.2 |
| 16 | 2.6 | 2.7 | 2.7 | 2.3 | 1.5 | 1.8 | 1.8 | 4.4 | 51 | 9.1 | 4.5 | 3.4 |
| 17 | 2.6 | 2.7 | 2.7 | 2.3 | 1.5 | 1.8 | 1.8 | 4.4 | 50 | 8.8 | 4.3 | 3.2 |
| 18 | 2.6 | 2.7 | 2.7 | 2.3 | 1.6 | 1.8 | 2.0 | 4.4 | 47 | 8.4 | 4.0 | 3.0 |
| 19 | 2.6 | 2.7 | 2.7 | 2.3 | 1.8 | 1.8 | 2.5 | 4.4 | 44 | 8.2 | 3.9 | 3.0 |
| 20 | 2.7 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 2.9 | 4.9 | 40 | 7.8 | 3.8 | 3.3 |
| 21 | 2.6 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 3.3 | 7.4 | 38 | 7.6 | 3.8 | 3.0 |
| 22 | 2.8 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 3.5 | 12 | 34 | 7.3 | 3.7 | 3.0 |
| 23 | 2.9 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 3.3 | 20 | 33 | 7.2 | 3.8 | 3.0 |
| 24 | 2.8 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 2.9 | 24 | 31 | 7.2 | 5.4 | 2.9 |
| 25 | 2.8 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 2.8 | 23 | 29 | 7.0 | 5.9 | 2.9 |
| 26 | 2.7 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 2.7 | 21 | 28 | 6.8 | 5.3 | 2.9 |
| 27 | 2.6 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 3.9 | 24 | 25 | 6.3 | 4.1 | 2.8 |
| 28 | 2.8 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 3.3 | 29 | 23 | 6.0 | 3.7 | 2.8 |
| 29 | 2.5 | 2.7 | 2.7 | 2.0 | 1.8 | 1.8 | 3.7 | 30 | 22 | 5.9 | 3.6 | 2.8 |
| 30 | 2.8 | 2.7 | 2.7 | 2.0 | --- | 1.8 | 3.7 | 30 | 21 | 5.8 | 3.6 | 2.8 |
| 31 | 2.7 | --- | 2.7 | 2.0 | --- | 1.8 | --- | 31 | --- | 5.6 | 3.7 | --- |
| TOTAL | 82.6 | 81.0 | 83.7 | 71.3 | 49.5 | 55.8 | 71.1 | 344.0 | 1238 | 336.5 | 136.9 | 96.5 |
| MEAN | 2.66 | 2.70 | 2.70 | 2.30 | 1.71 | 1.80 | 2.37 | 11.1 | 41.3 | 10.9 | 4.42 | 3.22 |
| MAX | 2.9 | 2.7 | 2.7 | 2.7 | 2.0 | 1.8 | 3.9 | 31 | 59 | 22 | 5.9 | 4.2 |
| MIN | 2.5 | 2.7 | 2.7 | 2.0 | 1.5 | 1.8 | 1.8 | 2.8 | 21 | 5.6 | 3.6 | 2.8 |
| AC-FT | 164 | 161 | 166 | 141 | 98 | 111 | 141 | 682 | 2460 | 667 | 272 | 191 |

CAL YR 1979 TOTAL 2004.6 MEAN 5.49 MAX 33 MIN 2.1 AC-FT 3980
WTR YR 1980 TOTAL 2646.9 MEAN 7.23 MAX 59 MIN 1.5 AC-FT 5250

NOTE.--NO GAGE-HEIGHT RECORD NOV. 2 TO APR. 22.

## 09050100 TENMILE CREEK BELOW NORTH TENMILE CREEK, AT FRISCO, CO

LOCATION.--Lat 39°34'37", long 106°06'33", in SW¼NE¼ sec.34, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank 600 ft (180 m) downstream from bridge on U.S. Highway 6, 850 ft (260 m) downstream from North Tenmile Creek, and 0.6 mi (1.0 km) west of Frisco.

DRAINAGE AREA.--93.3 mi² (241.6 km²).

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1971, published as "below North Fork, at Frisco."

GAGE.--Water-stage recorder. Altitude of gage is 9,090 ft (2,771 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by a few small diversions above station for irrigation and municipal use and transbasin diversion from Robinson Reservoir, capacity, 2,520 acre-ft (3.11 hm³) in Eagle River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 93.3 ft³/s (2.642 m³/s), 67,600 acre-ft/yr (83.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,910 ft³/s (54.1 m³/s) June 16, 1965, gage height, 6.15 ft (1.875 m), from rating curve extended above 750 ft³/s (21 m³/s); minimum daily, 7 ft³/s (0.20 m³/s) Mar. 8, 14, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 928 ft³/s (26.3 m³/s) at 2100 June 9, gage height, 4.91 ft (1.497 m), only peak above base of 700 ft³/s (20 m³/s); minimum daily, 16 ft³/s (0.45 m³/s) Feb. 26 to Mar. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 28 | 23 | 21 | 21 | 16 | 20 | 60 | 487 | 366 | 64 | 38 |
| 2 | 35 | 27 | 21 | 21 | 21 | 16 | 20 | 60 | 490 | 353 | 63 | 35 |
| 3 | 34 | 27 | 21 | 21 | 21 | 16 | 20 | 65 | 540 | 317 | 61 | 36 |
| 4 | 34 | 25 | 21 | 21 | 21 | 16 | 20 | 76 | 604 | 285 | 58 | 35 |
| 5 | 33 | 22 | 21 | 21 | 21 | 16 | 20 | 89 | 659 | 262 | 56 | 35 |
| 6 | 33 | 21 | 21 | 21 | 21 | 17 | 20 | 103 | 666 | 240 | 54 | 34 |
| 7 | 31 | 21 | 21 | 21 | 21 | 18 | 20 | 113 | 672 | 232 | 51 | 34 |
| 8 | 31 | 24 | 21 | 21 | 21 | 18 | 20 | 116 | 687 | 217 | 50 | 51 |
| 9 | 31 | 27 | 21 | 21 | 21 | 18 | 20 | 108 | 768 | 202 | 50 | 72 |
| 10 | 30 | 28 | 21 | 21 | 21 | 18 | 20 | 113 | 799 | 210 | 48 | 52 |
| 11 | 30 | 28 | 21 | 21 | 18 | 18 | 20 | 122 | 796 | 214 | 46 | 51 |
| 12 | 30 | 29 | 21 | 21 | 18 | 18 | 20 | 131 | 779 | 195 | 46 | 46 |
| 13 | 30 | 27 | 21 | 21 | 18 | 18 | 20 | 116 | 760 | 175 | 46 | 44 |
| 14 | 30 | 25 | 21 | 21 | 18 | 18 | 20 | 109 | 720 | 152 | 45 | 41 |
| 15 | 30 | 23 | 21 | 21 | 18 | 18 | 21 | 106 | 704 | 135 | 61 | 39 |
| 16 | 30 | 23 | 21 | 21 | 18 | 18 | 22 | 107 | 652 | 130 | 57 | 41 |
| 17 | 30 | 23 | 21 | 21 | 18 | 18 | 24 | 112 | 609 | 122 | 52 | 39 |
| 18 | 30 | 23 | 21 | 21 | 18 | 18 | 22 | 107 | 590 | 109 | 49 | 36 |
| 19 | 29 | 23 | 21 | 21 | 18 | 18 | 21 | 125 | 574 | 108 | 43 | 34 |
| 20 | 30 | 23 | 21 | 21 | 18 | 18 | 23 | 160 | 551 | 104 | 43 | 38 |
| 21 | 32 | 23 | 21 | 21 | 18 | 19 | 26 | 216 | 530 | 98 | 42 | 35 |
| 22 | 30 | 23 | 21 | 21 | 18 | 20 | 30 | 316 | 515 | 94 | 40 | 33 |
| 23 | 30 | 23 | 21 | 21 | 18 | 20 | 36 | 417 | 527 | 89 | 40 | 33 |
| 24 | 29 | 23 | 21 | 21 | 18 | 20 | 44 | 422 | 504 | 87 | 43 | 32 |
| 25 | 29 | 23 | 21 | 21 | 18 | 20 | 41 | 374 | 498 | 83 | 57 | 32 |
| 26 | 29 | 23 | 21 | 21 | 16 | 20 | 42 | 347 | 482 | 81 | 64 | 31 |
| 27 | 29 | 23 | 21 | 21 | 16 | 20 | 47 | 359 | 444 | 75 | 51 | 29 |
| 28 | 29 | 23 | 21 | 21 | 16 | 20 | 54 | 422 | 404 | 73 | 45 | 31 |
| 29 | 29 | 23 | 21 | 21 | 16 | 20 | 62 | 438 | 397 | 69 | 42 | 30 |
| 30 | 28 | 23 | 21 | 21 | --- | 20 | 66 | 423 | 390 | 72 | 41 | 29 |
| 31 | 28 | --- | 21 | 21 | --- | 20 | --- | 471 | --- | 69 | 41 | --- |
| TOTAL | 949 | 727 | 653 | 651 | 544 | 568 | 861 | 6303 | 17798 | 5018 | 1549 | 1146 |
| MEAN | 30.6 | 24.2 | 21.1 | 21.0 | 18.8 | 18.3 | 28.7 | 203 | 593 | 162 | 50.0 | 38.2 |
| MAX | 36 | 29 | 23 | 21 | 21 | 20 | 66 | 471 | 799 | 366 | 64 | 72 |
| MIN | 28 | 21 | 21 | 21 | 16 | 16 | 20 | 60 | 390 | 69 | 40 | 29 |
| AC-FT | 1880 | 1440 | 1300 | 1290 | 1080 | 1130 | 1710 | 12500 | 35300 | 9950 | 3070 | 2270 |

CAL YR 1979 TOTAL 42307 MEAN 116 MAX 823 MIN 13 AC-FT 83920
WTR YR 1980 TOTAL 36767 MEAN 100 MAX 799 MIN 16 AC-FT 72930

NOTE.--NO GAGE-HEIGHT RECORD NOV. 14 TO APR. 15.

## 09050700 BLUE RIVER BELOW DILLON, CO

LOCATION.--Lat 39°37'32", long 106°03'57", in SE¼SE¼ sec.12, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 0.3 mi (0.5 km) downstream from Dillon Dam, 0.1 mi (0.2 km) upstream from Straight Creek, and 1.1 mi (1.8 km) west of Dillon.

DRAINAGE AREA.--335 $mi^2$ (868 $km^2$).

PERIOD OF RECORD.--January 1960 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,760 ft (2,670 m), from topographic map.

REMARKS.--Records good. Flow regulated since Sept. 3, 1963, by Dillon Reservoir, 0.3 mi (0.5 km) upstream (station 09050600). Natural flow of stream affected by transmountain diversions, transbasin diversions, and diversions above station for irrigation of about 400 acres (1.62 $km^2$) of hay meadows. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years (water years 1964-80), 190 $ft^3/s$ (5.381 $m^3/s$), 137,700 acre-ft/yr (170 $hm^3/yr$), since completion of Dillon Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 $ft^3/s$ (51.0 $m^3/s$) May 23, 1970, gage height, 3.63 ft (1.106 m); maximum gage height, 3.68 ft (1.122 m) June 26, 1971; no flow Sept. 4 to Nov. 19, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,370 $ft^3/s$ (38.8 $m^3/s$) at 0100 June 5, gage height, 3.10 ft (0.945 m); minimum daily, 15 $ft^3/s$ (0.42 $m^3/s$) Nov. 14-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 55 | 53 | 51 | 74 | 106 | 95 | 79 | 279 | 1020 | 979 | 231 | 179 |
| 2 | 55 | 53 | 51 | 74 | 79 | 87 | 79 | 227 | 1140 | 972 | 223 | 150 |
| 3 | 55 | 53 | 70 | 74 | 76 | 81 | 79 | 208 | 1140 | 1000 | 193 | 112 |
| 4 | 55 | 53 | 84 | 70 | 74 | 81 | 76 | 227 | 1260 | 979 | 193 | 102 |
| 5 | 55 | 53 | 87 | 70 | 74 | 81 | 76 | 283 | 1370 | 888 | 186 | 123 |
| 6 | 55 | 53 | 84 | 76 | 74 | 81 | 74 | 322 | 1370 | 888 | 193 | 116 |
| 7 | 55 | 53 | 84 | 79 | 74 | 81 | 74 | 372 | 1370 | 867 | 190 | 116 |
| 8 | 55 | 53 | 84 | 79 | 72 | 81 | 74 | 390 | 1360 | 825 | 150 | 119 |
| 9 | 55 | 53 | 84 | 79 | 67 | 79 | 74 | 395 | 1360 | 797 | 98 | 201 |
| 10 | 55 | 53 | 84 | 79 | 67 | 79 | 74 | 395 | 1360 | 764 | 56 | 263 |
| 11 | 55 | 53 | 84 | 87 | 67 | 79 | 74 | 390 | 1360 | 738 | 89 | 231 |
| 12 | 55 | 53 | 87 | 92 | 67 | 79 | 74 | 395 | 1360 | 751 | 165 | 186 |
| 13 | 55 | 28 | 87 | 101 | 65 | 79 | 72 | 395 | 1360 | 738 | 165 | 172 |
| 14 | 55 | 15 | 74 | 106 | 60 | 70 | 70 | 390 | 1360 | 706 | 143 | 172 |
| 15 | 55 | 15 | 70 | 116 | 60 | 60 | 74 | 390 | 1370 | 654 | 150 | 175 |
| 16 | 58 | 15 | 70 | 126 | 60 | 60 | 76 | 390 | 1370 | 606 | 165 | 175 |
| 17 | 106 | 15 | 70 | 126 | 60 | 60 | 76 | 390 | 1370 | 570 | 165 | 132 |
| 18 | 109 | 15 | 70 | 109 | 60 | 63 | 74 | 390 | 1370 | 524 | 161 | 109 |
| 19 | 101 | 31 | 70 | 92 | 60 | 63 | 76 | 390 | 1370 | 480 | 161 | 109 |
| 20 | 55 | 81 | 70 | 81 | 60 | 63 | 81 | 395 | 1350 | 455 | 147 | 109 |
| 21 | 55 | 101 | 70 | 81 | 74 | 63 | 81 | 395 | 1230 | 435 | 106 | 109 |
| 22 | 56 | 101 | 70 | 81 | 89 | 63 | 123 | 395 | 1260 | 415 | 89 | 106 |
| 23 | 55 | 70 | 70 | 81 | 92 | 63 | 172 | 395 | 1260 | 395 | 87 | 94 |
| 24 | 55 | 51 | 72 | 81 | 92 | 63 | 215 | 395 | 1250 | 372 | 109 | 136 |
| 25 | 53 | 51 | 76 | 81 | 92 | 63 | 201 | 395 | 1240 | 354 | 143 | 133 |
| 26 | 53 | 51 | 76 | 81 | 92 | 63 | 147 | 395 | 1260 | 331 | 183 | 123 |
| 27 | 53 | 51 | 76 | 81 | 92 | 65 | 140 | 395 | 1240 | 308 | 208 | 123 |
| 28 | 53 | 53 | 76 | 81 | 92 | 65 | 143 | 400 | 1260 | 291 | 208 | 123 |
| 29 | 53 | 53 | 76 | 81 | 95 | 67 | 154 | 451 | 1250 | 267 | 208 | 123 |
| 30 | 53 | 53 | 76 | 106 | --- | 74 | 227 | 1180 | 1120 | 243 | 208 | 123 |
| 31 | 53 | --- | 76 | 147 | --- | 79 | --- | 1060 | --- | 239 | 208 | --- |
| TOTAL | 1846 | 1486 | 2329 | 2772 | 2192 | 2230 | 3109 | 12869 | 38760 | 18831 | 4981 | 4244 |
| MEAN | 59.5 | 49.5 | 75.1 | 89.4 | 75.6 | 71.9 | 104 | 415 | 1292 | 607 | 161 | 141 |
| MAX | 109 | 101 | 87 | 147 | 106 | 95 | 227 | 1180 | 1370 | 1000 | 231 | 263 |
| MIN | 53 | 15 | 51 | 70 | 60 | 60 | 70 | 208 | 1020 | 239 | 56 | 94 |
| AC-FT | 3660 | 2950 | 4620 | 5500 | 4350 | 4420 | 6170 | 25530 | 76880 | 37350 | 9880 | 8420 |

CAL YR 1979 TOTAL 53136 MEAN 146 MAX 1440 MIN 15 AC-FT 105400
WTR YR 1980 TOTAL 95649 MEAN 261 MAX 1370 MIN 15 AC-FT 189700

## 09052000 ROCK CREEK NEAR DILLON, CO

LOCATION.--Lat 39°43'23", long 106°07'41", in NE¼ sec.9, T.4 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 500 ft (150 m) upstream from bridge on State Highway 9, 1,100 ft (340 m) upstream from mouth, 1,200 ft (370 m) downstream from confluence of North and South Rock Creeks, and 8 mi (13 km) northwest of Dillon.

DRAINAGE AREA.--15.8 mi² (40.9 km²).

PERIOD OF RECORD.--July 1942 to September 1956, October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,502.52 ft (2,591.568 m) (Colorado Highway Department datum). Prior to Apr. 21, 1943, nonrecording gage, and Apr. 21, 1943, to Sept. 13, 1950, water-stage recorder, at site 500 ft (150 m) downstream at datum 28.76 ft (8.766 m) lower.

REMARKS.--Records good except those for winter period, which are poor. A few small diversions for irrigation of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--28 years (water years 1943-56, 1967-80), 22.9 ft³/s (0.649 m³/s), 16,590 acre-ft/yr (20.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 289 ft³/s (8.18 m³/s) June 10, 1973, gage height, 4.35 ft (1.326 m), from rating curve extended above 154 ft³/s (4.4 m³/s); maximum gage height, 4.36 ft (1.329 m) June 24, 1971; minimum daily discharge, 2.2 ft³/s (0.062 m³/s) Apr. 13, 17, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 209 ft³/s (5.92 m³/s) at 2300 June 11, gage height, 4.17 ft (1.271 m), only peak above base of 160 ft³/s (4.5 m³/s); minimum daily, 3.0 ft³/s (0.085 m³/s) Feb. 11-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.5 | 5.0 | 4.4 | 4.5 | 4.5 | 3.5 | 3.5 | 14 | 85 | 140 | 30 | 13 |
| 2 | 8.1 | 4.9 | 4.4 | 4.5 | 4.0 | 3.5 | 3.5 | 13 | 85 | 140 | 28 | 12 |
| 3 | 7.8 | 4.8 | 4.4 | 4.5 | 3.5 | 3.5 | 3.5 | 14 | 94 | 120 | 28 | 11 |
| 4 | 7.6 | 4.8 | 4.6 | 4.5 | 3.5 | 3.5 | 3.5 | 16 | 109 | 110 | 26 | 11 |
| 5 | 7.5 | 4.7 | 4.6 | 4.5 | 3.5 | 3.5 | 3.5 | 19 | 125 | 95 | 25 | 11 |
| 6 | 7.4 | 4.7 | 4.6 | 4.5 | 3.5 | 3.5 | 3.5 | 22 | 133 | 85 | 24 | 11 |
| 7 | 7.3 | 4.7 | 4.6 | 4.5 | 3.5 | 3.5 | 3.5 | 26 | 122 | 85 | 24 | 10 |
| 8 | 7.0 | 5.0 | 4.6 | 4.5 | 3.5 | 3.5 | 3.5 | 26 | 128 | 85 | 24 | 14 |
| 9 | 6.9 | 4.9 | 4.6 | 4.5 | 3.5 | 3.5 | 3.5 | 23 | 141 | 92 | 24 | 22 |
| 10 | 6.8 | 4.9 | 4.6 | 4.5 | 3.5 | 3.5 | 3.5 | 23 | 152 | 85 | 23 | 18 |
| 11 | 6.7 | 4.7 | 4.6 | 4.5 | 3.0 | 3.5 | 3.5 | 25 | 172 | 85 | 21 | 29 |
| 12 | 6.4 | 4.6 | 4.6 | 4.5 | 3.0 | 3.5 | 3.5 | 23 | 172 | 85 | 20 | 21 |
| 13 | 6.2 | 4.5 | 4.6 | 4.5 | 3.0 | 3.5 | 3.5 | 19 | 157 | 75 | 19 | 17 |
| 14 | 6.2 | 4.4 | 4.6 | 4.5 | 3.0 | 3.5 | 3.5 | 17 | 146 | 60 | 19 | 14 |
| 15 | 6.2 | 4.2 | 4.6 | 4.5 | 3.0 | 3.5 | 3.5 | 17 | 130 | 54 | 35 | 13 |
| 16 | 6.7 | 4.2 | 4.6 | 4.5 | 3.0 | 3.5 | 3.5 | 17 | 119 | 54 | 31 | 14 |
| 17 | 6.6 | 4.3 | 4.6 | 4.5 | 3.0 | 3.5 | 3.8 | 17 | 120 | 50 | 23 | 13 |
| 18 | 6.6 | 4.5 | 4.6 | 4.5 | 3.5 | 3.5 | 4.2 | 16 | 140 | 49 | 20 | 11 |
| 19 | 6.3 | 4.5 | 4.6 | 4.5 | 3.5 | 3.5 | 5.0 | 20 | 130 | 48 | 18 | 10 |
| 20 | 6.2 | 4.4 | 4.6 | 4.5 | 3.5 | 3.5 | 6.2 | 27 | 120 | 48 | 17 | 12 |
| 21 | 7.2 | 4.4 | 4.6 | 4.5 | 3.5 | 3.5 | 7.4 | 41 | 130 | 39 | 16 | 11 |
| 22 | 6.9 | 4.4 | 4.6 | 4.5 | 3.5 | 3.5 | 9.6 | 63 | 140 | 39 | 15 | 9.9 |
| 23 | 7.8 | 4.4 | 4.6 | 4.5 | 3.5 | 3.5 | 11 | 92 | 150 | 40 | 15 | 9.5 |
| 24 | 6.4 | 4.4 | 4.6 | 4.5 | 3.5 | 3.5 | 11 | 104 | 150 | 39 | 18 | 9.3 |
| 25 | 6.2 | 4.4 | 4.6 | 4.5 | 3.5 | 3.5 | 11 | 90 | 140 | 36 | 24 | 8.9 |
| 26 | 6.2 | 4.4 | 4.6 | 4.5 | 3.5 | 3.5 | 10 | 75 | 160 | 38 | 31 | 8.5 |
| 27 | 6.0 | 4.4 | 4.6 | 4.5 | 3.5 | 3.5 | 9.3 | 66 | 140 | 35 | 24 | 8.2 |
| 28 | 5.3 | 4.4 | 4.5 | 4.5 | 3.5 | 3.5 | 11 | 77 | 120 | 31 | 19 | 7.8 |
| 29 | 5.1 | 4.4 | 4.5 | 4.5 | 3.5 | 3.5 | 14 | 83 | 110 | 30 | 16 | 7.5 |
| 30 | 5.0 | 4.4 | 4.5 | 4.5 | --- | 3.5 | 15 | 71 | 120 | 33 | 15 | 7.4 |
| 31 | 5.0 | --- | 4.5 | 4.5 | --- | 3.5 | --- | 82 | --- | 34 | 15 | --- |
| TOTAL | 206.1 | 136.7 | 141.6 | 139.5 | 99.5 | 108.5 | 184.5 | 1238 | 3940 | 2039 | 687 | 375.0 |
| MEAN | 6.65 | 4.56 | 4.57 | 4.50 | 3.43 | 3.50 | 6.15 | 39.9 | 131 | 65.8 | 22.2 | 12.5 |
| MAX | 8.5 | 5.0 | 4.6 | 4.5 | 4.5 | 3.5 | 15 | 104 | 172 | 140 | 35 | 29 |
| MIN | 5.0 | 4.2 | 4.4 | 4.5 | 3.0 | 3.5 | 3.5 | 13 | 85 | 30 | 15 | 7.4 |
| AC-FT | 409 | 271 | 281 | 277 | 197 | 215 | 366 | 2460 | 7810 | 4040 | 1360 | 744 |

CAL YR 1979 TOTAL 9897.5 MEAN 27.1 MAX 172 MIN 3.5 AC-FT 19630
WTR YR 1980 TOTAL 9295.4 MEAN 25.4 MAX 172 MIN 3.0 AC-FT 18440

## 09052400 BOULDER CREEK AT UPPER STATION, NEAR DILLON, CO

LOCATION.--Lat 39°43'41", long 106°10'22", in SW¼SW¼ sec.6, T.4 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank 1.2 mi (1.9 km) downstream from Boulder Lake, 3.2 mi (5.1 km) upstream from mouth, and 9.4 mi (15.1 km) northwest of Dillon.

DRAINAGE AREA.--8.56 mi$^2$ (22.2 km$^2$).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,460 ft (2,883 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 16.3 ft$^3$/s (0.462 m$^3$/s), 11,810 acre-ft/yr (14.6 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 254 ft$^3$/s (7.19 m$^3$/s) July 4, 1975, gage height, 3.27 ft (0.997 m); minimum daily, 0.80 ft$^3$/s (0.023 m$^3$/s) Jan. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 174 ft$^3$/s (4.93 m$^3$/s) at 0030 June 13, gage height, 2.87 ft (0.875 m); only peak above base of 120 ft$^3$/s (3.4 m$^3$/s); minimum daily, 1.1 ft$^3$/s (0.031 m$^3$/s) Feb. 8-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.8 | 2.5 | 2.0 | 1.5 | 1.5 | 1.2 | 1.2 | 13 | 48 | 113 | 24 | 9.6 |
| 2 | 4.6 | 2.5 | 2.0 | 1.5 | 1.5 | 1.2 | 1.2 | 13 | 49 | 111 | 22 | 8.3 |
| 3 | 4.4 | 2.5 | 2.0 | 1.5 | 1.5 | 1.2 | 1.2 | 13 | 56 | 102 | 20 | 7.8 |
| 4 | 4.2 | 2.5 | 2.0 | 1.5 | 1.4 | 1.2 | 1.2 | 15 | 73 | 87 | 20 | 7.5 |
| 5 | 4.2 | 2.5 | 2.0 | 1.5 | 1.3 | 1.2 | 1.2 | 18 | 87 | 78 | 18 | 7.5 |
| 6 | 4.2 | 2.6 | 2.0 | 1.5 | 1.3 | 1.2 | 1.2 | 22 | 98 | 70 | 18 | 7.2 |
| 7 | 4.2 | 2.7 | 2.0 | 1.5 | 1.2 | 1.2 | 1.2 | 26 | 94 | 70 | 18 | 7.2 |
| 8 | 4.1 | 2.8 | 2.0 | 1.5 | 1.1 | 1.2 | 1.2 | 29 | 96 | 70 | 18 | 9.2 |
| 9 | 3.9 | 2.8 | 2.0 | 1.5 | 1.1 | 1.2 | 1.2 | 29 | 119 | 73 | 18 | 14 |
| 10 | 3.9 | 2.8 | 2.0 | 1.5 | 1.1 | 1.2 | 1.2 | 29 | 133 | 70 | 18 | 14 |
| 11 | 3.9 | 2.8 | 2.0 | 1.5 | 1.1 | 1.2 | 1.2 | 29 | 145 | 70 | 16 | 20 |
| 12 | 3.9 | 2.8 | 2.0 | 1.5 | 1.1 | 1.2 | 1.2 | 29 | 155 | 69 | 15 | 16 |
| 13 | 3.9 | 2.8 | 1.7 | 1.5 | 1.1 | 1.2 | 1.2 | 25 | 145 | 64 | 14 | 12 |
| 14 | 3.8 | 2.8 | 1.5 | 1.5 | 1.1 | 1.2 | 1.2 | 22 | 135 | 52 | 13 | 11 |
| 15 | 3.8 | 2.8 | 1.5 | 1.5 | 1.1 | 1.2 | 1.2 | 19 | 121 | 50 | 21 | 9.6 |
| 16 | 3.8 | 2.8 | 1.5 | 1.5 | 1.1 | 1.2 | 1.4 | 18 | 107 | 45 | 24 | 9.6 |
| 17 | 3.8 | 2.8 | 1.5 | 1.5 | 1.1 | 1.2 | 1.6 | 18 | 107 | 41 | 18 | 9.2 |
| 18 | 3.8 | 2.8 | 1.5 | 1.5 | 1.2 | 1.2 | 1.9 | 18 | 121 | 40 | 14 | 8.3 |
| 19 | 3.8 | 2.8 | 1.5 | 1.5 | 1.2 | 1.2 | 2.3 | 18 | 125 | 39 | 13 | 7.8 |
| 20 | 3.6 | 2.8 | 1.5 | 1.5 | 1.2 | 1.2 | 2.6 | 25 | 109 | 37 | 12 | 8.3 |
| 21 | 3.9 | 2.8 | 1.5 | 1.5 | 1.2 | 1.2 | 3.2 | 37 | 105 | 33 | 11 | 8.3 |
| 22 | 3.9 | 2.8 | 1.5 | 1.5 | 1.2 | 1.2 | 3.7 | 47 | 115 | 31 | 9.6 | 7.8 |
| 23 | 3.9 | 2.8 | 1.5 | 1.5 | 1.2 | 1.2 | 4.3 | 58 | 123 | 30 | 9.2 | 6.9 |
| 24 | 3.8 | 2.5 | 1.5 | 1.5 | 1.2 | 1.2 | 4.8 | 54 | 133 | 29 | 11 | 6.3 |
| 25 | 3.8 | 2.2 | 1.5 | 1.5 | 1.2 | 1.2 | 5.5 | 50 | 129 | 26 | 18 | 6.1 |
| 26 | 3.8 | 2.0 | 1.5 | 1.5 | 1.2 | 1.2 | 6.2 | 45 | 135 | 28 | 22 | 5.7 |
| 27 | 3.8 | 2.0 | 1.5 | 1.5 | 1.2 | 1.2 | 7.0 | 54 | 129 | 25 | 17 | 5.2 |
| 28 | 3.5 | 2.0 | 1.5 | 1.5 | 1.2 | 1.2 | 8.2 | 60 | 113 | 24 | 14 | 5.2 |
| 29 | 3.4 | 2.0 | 1.5 | 1.5 | 1.2 | 1.2 | 10 | 45 | 87 | 22 | 12 | 5.0 |
| 30 | 3.4 | 2.0 | 1.5 | 1.5 | --- | 1.2 | 13 | 39 | 103 | 26 | 11 | 5.0 |
| 31 | 3.4 | --- | 1.5 | 1.5 | --- | 1.2 | --- | 45 | --- | 26 | 10 | --- |
| TOTAL | 121.2 | 77.3 | 52.7 | 46.5 | 35.1 | 37.2 | 93.7 | 962 | 3295 | 1652 | 498.8 | 265.6 |
| MEAN | 3.91 | 2.58 | 1.70 | 1.50 | 1.21 | 1.20 | 3.12 | 31.0 | 110 | 53.3 | 16.1 | 8.85 |
| MAX | 4.8 | 2.8 | 2.0 | 1.5 | 1.5 | 1.2 | 13 | 60 | 155 | 113 | 24 | 20 |
| MIN | 3.4 | 2.0 | 1.5 | 1.5 | 1.1 | 1.2 | 1.2 | 13 | 48 | 22 | 9.2 | 5.0 |
| AC-FT | 240 | 153 | 105 | 92 | 70 | 74 | 186 | 1910 | 6540 | 3280 | 989 | 527 |

CAL YR 1979 TOTAL 6605.9 MEAN 18.1 MAX 127 MIN 1.1 AC-FT 13100
WTR YR 1980 TOTAL 7137.1 MEAN 19.5 MAX 155 MIN 1.1 AC-FT 14160

NOTE.--NO GAGE-HEIGHT RECORD OCT. 30 TO MAY 30.

## 09052800 SLATE CREEK AT UPPER STATION, NEAR DILLON, CO

LOCATION.--Lat 39°45'47", long 106°11'31", in SW¼NW¼ sec.25, T.3 S., R.79 W., Summit County, Hydrologic Unit 14010002, on left bank 0.2 mi (0.3 km) upstream from unnamed tributary, 2.7 mi (4.3 km) upstream from mouth, and 12 mi (19.3 km) northwest of Dillon.

DRAINAGE AREA.--14.2 mi² (36.8 km²).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,040 ft (2,755 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 24.9 ft³/s (0.705 m³/s) 18,040 acre-ft/yr (22.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 266 ft³/s (7.53 m³/s) June 19, 1974, gage height, 5.56 ft (1.695 m), from rating curve extended above 170 ft³/s (4.8 m³/s); maximum gage height, 6.56 ft (1.999 m) May 2, 1975 (backwater from beaver dam and ice); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Mar. 14, 1974, Jan. 12, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 232 ft³/s (6.57 m³/s) at 0100 June 12, gage height, 5.00 ft (1.524 m); only peak above base of 160 ft³/s (4.5 m³/s); minimum daily, 1.5 ft³/s (0.042 m³/s) Feb. 5-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.2 | 4.5 | 4.4 | 2.3 | 1.7 | 2.0 | 2.0 | 17 | 92 | 165 | 43 | 14 |
| 2 | 6.1 | 4.6 | 4.2 | 2.3 | 1.7 | 2.0 | 2.0 | 18 | 87 | 174 | 39 | 12 |
| 3 | 5.4 | 4.3 | 3.6 | 2.2 | 1.7 | 2.0 | 2.0 | 18 | 100 | 165 | 39 | 11 |
| 4 | 5.4 | 4.1 | 3.3 | 2.1 | 1.6 | 2.0 | 2.0 | 20 | 123 | 137 | 35 | 10 |
| 5 | 5.3 | 4.0 | 3.0 | 1.9 | 1.5 | 2.0 | 2.0 | 24 | 146 | 122 | 33 | 10 |
| 6 | 5.2 | 3.9 | 2.8 | 1.8 | 1.5 | 2.0 | 2.0 | 30 | 154 | 111 | 30 | 10 |
| 7 | 5.0 | 3.9 | 2.5 | 1.8 | 1.5 | 2.0 | 2.0 | 37 | 153 | 108 | 31 | 10 |
| 8 | 4.9 | 3.9 | 2.6 | 1.9 | 1.5 | 2.0 | 2.0 | 38 | 148 | 105 | 31 | 12 |
| 9 | 4.7 | 3.8 | 2.5 | 2.0 | 1.5 | 2.0 | 2.0 | 33 | 170 | 113 | 31 | 23 |
| 10 | 4.7 | 3.7 | 2.4 | 2.0 | 1.5 | 2.0 | 2.0 | 31 | 179 | 109 | 30 | 21 |
| 11 | 4.6 | 3.7 | 2.3 | 2.1 | 1.5 | 2.0 | 2.0 | 31 | 188 | 116 | 27 | 35 |
| 12 | 4.6 | 3.6 | 2.4 | 2.2 | 1.5 | 2.0 | 2.0 | 29 | 199 | 118 | 25 | 29 |
| 13 | 4.7 | 3.6 | 2.5 | 2.2 | 1.5 | 2.0 | 2.0 | 23 | 185 | 112 | 23 | 22 |
| 14 | 4.6 | 3.5 | 2.7 | 2.2 | 1.5 | 2.0 | 2.0 | 19 | 172 | 95 | 23 | 18 |
| 15 | 4.5 | 3.5 | 2.7 | 2.2 | 1.5 | 2.0 | 2.0 | 19 | 160 | 90 | 46 | 16 |
| 16 | 4.8 | 3.5 | 2.6 | 2.2 | 1.5 | 2.0 | 2.0 | 18 | 144 | 80 | 46 | 15 |
| 17 | 4.7 | 3.4 | 2.6 | 2.2 | 1.5 | 2.0 | 2.0 | 18 | 144 | 76 | 32 | 14 |
| 18 | 4.8 | 3.4 | 2.8 | 2.2 | 1.5 | 2.0 | 2.2 | 18 | 154 | 74 | 25 | 12 |
| 19 | 4.4 | 3.6 | 3.0 | 2.2 | 1.6 | 2.0 | 2.8 | 24 | 160 | 72 | 22 | 10 |
| 20 | 4.6 | 3.6 | 3.2 | 2.2 | 1.7 | 2.0 | 3.7 | 34 | 147 | 72 | 19 | 13 |
| 21 | 5.5 | 3.6 | 3.2 | 2.2 | 1.8 | 2.0 | 4.7 | 49 | 147 | 62 | 17 | 14 |
| 22 | 5.0 | 3.5 | 2.8 | 2.2 | 2.0 | 2.0 | 11 | 74 | 152 | 60 | 15 | 12 |
| 23 | 5.0 | 3.7 | 2.4 | 2.0 | 2.0 | 2.0 | 14 | 102 | 160 | 60 | 15 | 10 |
| 24 | 5.0 | 3.5 | 2.3 | 1.9 | 2.0 | 2.0 | 13 | 113 | 166 | 58 | 17 | 9.6 |
| 25 | 4.8 | 3.6 | 2.2 | 1.7 | 2.0 | 2.0 | 12 | 98 | 164 | 51 | 29 | 8.2 |
| 26 | 4.7 | 3.7 | 2.1 | 1.7 | 2.0 | 2.0 | 11 | 72 | 175 | 54 | 38 | 7.8 |
| 27 | 4.7 | 3.9 | 2.0 | 1.7 | 2.0 | 2.0 | 11 | 64 | 174 | 49 | 29 | 7.3 |
| 28 | 4.5 | 4.0 | 1.9 | 1.7 | 2.0 | 2.0 | 12 | 75 | 153 | 45 | 23 | 7.0 |
| 29 | 4.5 | 4.1 | 2.0 | 1.7 | 2.0 | 2.0 | 15 | 92 | 126 | 40 | 19 | 6.7 |
| 30 | 4.4 | 4.3 | 2.1 | 1.7 | --- | 2.0 | 18 | 79 | 143 | 46 | 17 | 6.5 |
| 31 | 4.5 | --- | 2.2 | 1.7 | --- | 2.0 | --- | 88 | --- | 47 | 17 | --- |
| TOTAL | 151.8 | 114.0 | 83.3 | 62.4 | 48.8 | 62.0 | 164.4 | 1405 | 4565 | 2786 | 866 | 406.1 |
| MEAN | 4.90 | 3.80 | 2.69 | 2.01 | 1.68 | 2.00 | 5.48 | 45.3 | 152 | 89.9 | 27.9 | 13.5 |
| MAX | 6.2 | 4.6 | 4.4 | 2.3 | 2.0 | 2.0 | 18 | 113 | 199 | 174 | 46 | 35 |
| MIN | 4.4 | 3.4 | 1.9 | 1.7 | 1.5 | 2.0 | 2.0 | 17 | 87 | 40 | 15 | 6.5 |
| AC-FT | 301 | 226 | 165 | 124 | 97 | 123 | 326 | 2790 | 9050 | 5530 | 1720 | 805 |

CAL YR 1979 TOTAL 11657.8 MEAN 31.9 MAX 218 MIN 1.9 AC-FT 23120
WTR YR 1980 TOTAL 10714.8 MEAN 29.3 MAX 199 MIN 1.5 AC-FT 21250

NOTE.--NO GAGE-HEIGHT RECORD JAN. 23 TO APR. 20.

## 09054000 BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO

LOCATION.--Lat 39°47'59", long 106°16'04", in SW¼SW¼ sec.8, T.3 S., R.79 W., Summit County, Hydrologic Unit 14010002, on right bank 600 ft (180 m) upstream from bridge, 0.3 mi (0.5 km) downstream from Black Lake, 4.5 mi (7.2 km) upstream from high-water line of Green Mountain Reservoir at elevation 7,950 ft (2,423.2 m), and 17 mi (27 km) northwest of Dillon.

DRAINAGE AREA.--15.0 mi² (38.8 km²).

PERIOD OF RECORD.--July 1942 to September 1949, October 1966 to current year.

REVISED RECORDS.--WSP 2124: Drainage area. WDR CO-77-2: 1976.

GAGE.--Water-stage recorder. Altitude of gage is 8,750 ft (2,667 m), from topographic map. July 17, 1942, to May 27, 1943, nonrecording gage, and May 28, 1943, to Sept. 30, 1949, water-stage recorder at site 600 ft (180 m) downstream at different datums.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--21 years, 31.5 ft³/s (0.892 m³/s), 22,820 acre-ft/yr (28.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 384 ft³/s (10.9 m³/s) July 1, 1943, gage height, 4.72 ft (1.439 m), site and datum then in use, from rating curve extended above 260 ft³/s (7.4 m³/s); minimum daily, 1.3 ft³/s (0.037 m³/s) Feb. 22, 1976, Jan. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft³/s (4.5 m³/s) and maximum (*):

| Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) | Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| May 23 | 2400 | 167 | 4.73 | 3.52 | 1.073 | June 12 | 0200 | *286 | 8.10 | 3.97 | 1.210 |

Minimum daily discharge, 2.0 ft³/s (0.057 m³/s) Feb. 12-17.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.1 | 3.0 | 4.2 | 2.5 | 3.5 | 3.0 | 3.0 | 23 | 99 | 190 | 56 | 19 |
| 2 | 5.9 | 3.0 | 4.2 | 2.5 | 3.3 | 3.0 | 3.0 | 17 | 95 | 196 | 52 | 16 |
| 3 | 5.2 | 2.7 | 4.2 | 2.5 | 3.0 | 3.0 | 3.0 | 14 | 111 | 202 | 50 | 14 |
| 4 | 4.9 | 2.5 | 4.0 | 2.5 | 2.7 | 3.0 | 3.0 | 15 | 150 | 167 | 47 | 13 |
| 5 | 4.6 | 2.5 | 3.8 | 2.5 | 2.4 | 3.0 | 3.0 | 20 | 174 | 146 | 43 | 13 |
| 6 | 4.6 | 2.5 | 3.6 | 2.5 | 2.3 | 3.0 | 3.0 | 31 | 186 | 130 | 40 | 13 |
| 7 | 4.4 | 2.5 | 3.2 | 2.5 | 2.3 | 3.0 | 3.0 | 36 | 176 | 130 | 41 | 14 |
| 8 | 4.3 | 2.8 | 2.8 | 2.5 | 2.3 | 3.0 | 3.0 | 37 | 176 | 137 | 43 | 19 |
| 9 | 4.2 | 3.0 | 2.5 | 2.5 | 2.3 | 3.0 | 3.0 | 30 | 202 | 135 | 43 | 37 |
| 10 | 4.2 | 3.1 | 2.5 | 2.5 | 2.3 | 3.0 | 3.0 | 28 | 220 | 137 | 42 | 35 |
| 11 | 4.0 | 3.1 | 2.5 | 2.5 | 2.2 | 3.0 | 3.0 | 27 | 237 | 148 | 37 | 72 |
| 12 | 3.6 | 3.1 | 2.5 | 2.5 | 2.0 | 3.0 | 3.0 | 26 | 246 | 157 | 33 | 44 |
| 13 | 3.6 | 3.0 | 2.5 | 2.5 | 2.0 | 3.0 | 3.0 | 22 | 228 | 135 | 31 | 30 |
| 14 | 3.6 | 2.8 | 2.5 | 2.5 | 2.0 | 3.0 | 3.0 | 19 | 212 | 109 | 32 | 24 |
| 15 | 3.4 | 2.8 | 2.5 | 2.5 | 2.0 | 3.0 | 3.0 | 17 | 192 | 98 | 72 | 21 |
| 16 | 3.4 | 2.9 | 2.5 | 2.5 | 2.0 | 3.0 | 3.0 | 16 | 178 | 90 | 70 | 19 |
| 17 | 3.4 | 3.0 | 2.5 | 2.5 | 2.0 | 3.0 | 3.0 | 20 | 175 | 87 | 45 | 16 |
| 18 | 3.4 | 2.3 | 2.5 | 2.5 | 2.1 | 3.0 | 3.0 | 19 | 185 | 86 | 33 | 14 |
| 19 | 3.8 | 3.1 | 2.5 | 2.5 | 2.3 | 3.0 | 3.0 | 20 | 186 | 84 | 28 | 13 |
| 20 | 3.2 | 3.3 | 2.5 | 2.5 | 2.4 | 3.0 | 3.5 | 32 | 176 | 83 | 25 | 19 |
| 21 | 3.1 | 3.2 | 2.5 | 2.5 | 2.6 | 3.0 | 4.4 | 53 | 172 | 72 | 23 | 19 |
| 22 | 3.0 | 3.2 | 2.5 | 2.5 | 2.8 | 3.0 | 5.8 | 92 | 178 | 70 | 21 | 15 |
| 23 | 3.0 | 3.2 | 2.5 | 2.5 | 3.0 | 3.0 | 7.4 | 144 | 187 | 71 | 20 | 13 |
| 24 | 3.0 | 3.2 | 2.5 | 2.5 | 3.0 | 3.0 | 8.8 | 144 | 201 | 66 | 24 | 11 |
| 25 | 3.0 | 3.4 | 2.5 | 2.5 | 3.0 | 3.0 | 10 | 97 | 198 | 60 | 37 | 8.9 |
| 26 | 3.0 | 3.8 | 2.5 | 2.5 | 3.0 | 3.0 | 11 | 80 | 213 | 62 | 53 | 8.3 |
| 27 | 3.0 | 4.0 | 2.5 | 2.6 | 3.0 | 3.0 | 13 | 78 | 224 | 57 | 39 | 7.9 |
| 28 | 3.0 | 3.8 | 2.5 | 3.0 | 3.0 | 3.0 | 14 | 90 | 189 | 52 | 29 | 7.5 |
| 29 | 3.0 | 3.8 | 2.5 | 3.5 | 3.0 | 3.0 | 17 | 99 | 157 | 49 | 25 | 6.8 |
| 30 | 3.0 | 4.0 | 2.5 | 3.5 | --- | 3.0 | 20 | 75 | 176 | 60 | 23 | 6.1 |
| 31 | 3.0 | --- | 2.5 | 3.5 | --- | 3.0 | --- | 92 | --- | 61 | 22 | --- |
| TOTAL | 116.9 | 93.1 | 87.5 | 81.1 | 73.8 | 93.0 | 171.9 | 1513 | 5499 | 3327 | 1177 | 568.5 |
| MEAN | 3.77 | 3.10 | 2.82 | 2.62 | 2.54 | 3.00 | 5.73 | 48.8 | 183 | 107 | 38.0 | 19.0 |
| MAX | 6.1 | 4.0 | 4.2 | 3.5 | 3.5 | 3.0 | 20 | 144 | 246 | 202 | 72 | 72 |
| MIN | 3.0 | 2.5 | 2.5 | 2.5 | 2.0 | 3.0 | 3.0 | 14 | 95 | 49 | 20 | 6.1 |
| AC-FT | 232 | 185 | 174 | 161 | 146 | 184 | 341 | 3000 | 10910 | 6600 | 2330 | 1130 |

CAL YR 1979 TOTAL 13390.8 MEAN 36.7 MAX 241 MIN 1.4 AC-FT 26560
WTR YR 1980 TOTAL 12801.8 MEAN 35.0 MAX 246 MIN 2.0 AC-FT 25390

NOTE.--NO GAGE-HEIGHT RECORD DEC. 21 TO MAY 2.

## 09055300 CATARACT CREEK NEAR KREMMLING, CO

LOCATION.--Lat 39°50'07", long 106°18'57", in SW¼NE¼ sec.35, T.2 S., R.80 W., Summit County, Hydrologic unit 14010002, on right bank 70 ft (21 m) downstream from lower Cataract Lake, 2.8 mi (4.5 km) upstream from high-water line of Green Mountain Reservoir at elevation 7,950 ft (2,423.2 m), and 17 mi (27 km) south of Kremmling.

DRAINAGE AREA.--12.0 mi² (31.1 km²).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,605 ft (2,623 m), from topographic map.

REMARKS.--Records good. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 19.6 ft³/s (0.555 m³/s), 14,200 acre-ft/yr (17.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 321 ft³/s (9.09 m³/s) June 21, 1967, gage height, 5.43 ft (1.655 m), from rating curve extended above 180 ft³/s (5.1 m³/s); minimum daily, 0.28 ft³/s (0.008 m³/s) Oct. 7, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 222 ft³/s (6.29 m³/s) at 0200 June 12, gage height, 4.63 ft (1.411 m), only peak above base of 160 ft³/s (4.5 m³/s); minimum daily, 0.42 ft³/s (0.012 m³/s) Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.1 | .78 | 1.8 | 1.2 | 1.6 | 1.5 | 1.3 | 16 | 78 | 105 | 17 | 5.8 |
| 2 | 2.0 | .63 | 1.8 | 1.2 | 1.6 | 1.5 | 1.2 | 14 | 77 | 101 | 15 | 5.1 |
| 3 | 1.8 | .66 | 1.7 | 1.2 | 1.5 | 1.4 | 1.2 | 14 | 87 | 97 | 14 | 4.8 |
| 4 | 1.8 | .63 | 1.6 | 1.2 | 1.3 | 1.4 | 1.2 | 16 | 117 | 84 | 13 | 4.5 |
| 5 | 1.7 | .60 | 1.4 | 1.2 | 1.3 | 1.3 | 1.2 | 20 | 140 | 71 | 12 | 4.1 |
| 6 | 1.6 | .63 | 1.4 | 1.2 | 1.2 | 1.4 | 1.2 | 26 | 147 | 61 | 11 | 3.8 |
| 7 | 1.4 | .72 | 1.4 | 1.2 | 1.2 | 1.5 | 1.2 | 32 | 142 | 61 | 9.7 | 3.7 |
| 8 | 1.2 | .81 | 1.4 | 1.2 | 1.2 | 1.5 | 1.2 | 34 | 135 | 62 | 9.3 | 3.5 |
| 9 | 1.1 | .72 | 1.4 | 1.2 | 1.2 | 1.5 | 1.2 | 33 | 156 | 59 | 9.1 | 4.4 |
| 10 | 1.0 | .78 | 1.3 | 1.1 | 1.2 | 1.5 | 1.2 | 32 | 174 | 57 | 8.8 | 6.7 |
| 11 | .96 | .69 | 1.3 | 1.1 | 1.2 | 1.5 | 1.2 | 32 | 189 | 57 | 8.3 | 13 |
| 12 | .96 | .72 | 1.3 | 1.1 | 1.1 | 1.5 | 1.2 | 35 | 194 | 59 | 7.6 | 15 |
| 13 | .94 | .75 | 1.3 | 1.2 | 1.1 | 1.5 | 1.2 | 28 | 180 | 54 | 7.2 | 12 |
| 14 | .75 | .81 | 1.3 | 1.3 | 1.1 | 1.5 | 1.2 | 23 | 167 | 45 | 7.1 | 9.8 |
| 15 | .63 | .90 | 1.3 | 1.4 | 1.0 | 1.4 | 1.2 | 20 | 151 | 40 | 9.1 | 8.2 |
| 16 | .63 | .90 | 1.3 | 1.4 | 1.0 | 1.4 | 1.3 | 19 | 137 | 36 | 16 | 7.2 |
| 17 | .63 | .93 | 1.2 | 1.4 | 1.0 | 1.4 | 1.5 | 22 | 135 | 34 | 13 | 6.1 |
| 18 | .63 | 1.0 | 1.2 | 1.4 | 1.1 | 1.3 | 1.7 | 20 | 143 | 32 | 11 | 5.2 |
| 19 | .51 | 1.2 | 1.2 | 1.4 | 1.2 | 1.3 | 2.2 | 21 | 143 | 29 | 8.5 | 4.6 |
| 20 | .42 | 1.3 | 1.2 | 1.4 | 1.2 | 1.3 | 2.7 | 30 | 132 | 29 | 7.5 | 5.0 |
| 21 | .57 | 1.4 | 1.2 | 1.3 | 1.3 | 1.3 | 3.5 | 43 | 123 | 27 | 6.9 | 5.5 |
| 22 | .57 | 1.4 | 1.2 | 1.3 | 1.3 | 1.2 | 4.6 | 67 | 126 | 24 | 6.3 | 5.4 |
| 23 | .63 | 1.4 | 1.2 | 1.3 | 1.5 | 1.2 | 7.2 | 78 | 136 | 22 | 5.8 | 5.1 |
| 24 | .69 | 1.3 | 1.2 | 1.3 | 1.5 | 1.2 | 8.5 | 79 | 145 | 21 | 6.1 | 4.6 |
| 25 | .72 | 1.4 | 1.2 | 1.3 | 1.5 | 1.2 | 8.9 | 67 | 137 | 20 | 6.8 | 4.2 |
| 26 | .57 | 1.6 | 1.2 | 1.3 | 1.5 | 1.2 | 9.7 | 65 | 147 | 21 | 9.4 | 3.9 |
| 27 | .63 | 1.9 | 1.2 | 1.3 | 1.5 | 1.2 | 10 | 84 | 151 | 20 | 10 | 3.8 |
| 28 | .66 | 1.9 | 1.2 | 1.4 | 1.5 | 1.2 | 11 | 85 | 121 | 17 | 8.3 | 3.6 |
| 29 | .69 | 1.9 | 1.2 | 1.6 | 1.5 | 1.3 | 12 | 89 | 93 | 16 | 7.0 | 3.4 |
| 30 | .75 | 1.8 | 1.2 | 1.7 | --- | 1.2 | 16 | 73 | 97 | 19 | 6.3 | 3.4 |
| 31 | .78 | --- | 1.2 | 1.7 | --- | 1.2 | --- | 74 | --- | 20 | 6.2 | --- |
| TOTAL | 30.02 | 32.16 | 41.0 | 40.5 | 37.4 | 42.0 | 118.9 | 1291 | 4100 | 1400 | 293.3 | 175.4 |
| MEAN | .97 | 1.07 | 1.32 | 1.31 | 1.29 | 1.35 | 3.96 | 41.6 | 137 | 45.2 | 9.46 | 5.85 |
| MAX | 2.1 | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 | 16 | 89 | 194 | 105 | 17 | 15 |
| MIN | .42 | .60 | 1.2 | 1.1 | 1.0 | 1.2 | 1.2 | 14 | 77 | 16 | 5.8 | 3.4 |
| AC-FT | 60 | 64 | 81 | 80 | 74 | 83 | 236 | 2560 | 8130 | 2780 | 582 | 348 |

CAL YR 1979 TOTAL 8604.82 MEAN 23.6 MAX 200 MIN .42 AC-FT 17070
WTR YR 1980 TOTAL 7601.68 MEAN 20.8 MAX 194 MIN .42 AC-FT 15080

## RESERVOIRS IN BLUE RIVER BASIN

09050600 DILLON RESERVOIR.--Lat 39°37'14", long 106°03'53", in NE¼ sec.13, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, in gatehouse at dam, 0.8 mi (1.3 km) upstream from Straight Creek, about 1.3 mi (2.1 km) southwest of Dillon, and 3.5 mi (5.6 km) northeast of Frisco. DRAINAGE AREA, 335 mi² (868 km²). PERIOD OF RECORD, September 1963 to current year. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Denver Board of Water Commissioners); gage readings have been reduced to elevations NGVD.

Reservoir is earth and rockfill dam. Dam completed and storage began Sept. 3, 1963; dead storage pool filled Sept. 12, 1963. Capacity, 254,000 acre-ft (313 hm³) between elevations 8,829.00 ft (2,691.079 m), invert of outlet valve, and 9,017.00 ft (2,748.382 m), crest of spillway. Dead storage, 3,270 acre-ft (4.03 hm³). Figures given represent usable contents. Reservoir stores water for transmountain diversion to South Platte River basin through Harold D. Roberts tunnel for municipal use by city of Denver. Records furnished by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 261,300 acre-ft (322 hm³) June 25, 1971, elevation, 9,019.20 ft (2,749.052 m); minimum since appreciable storage was attained in July 1964, 45,310 acre-ft (55.9 hm³) Apr. 20, 1965, elevation, 8,904.16 ft (2,713.988 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 258,600 acre-ft (319 hm³) July 4-6, elevation, 9,018.38 ft (2,749.802 m); minimum, 225,900 acre-ft (279 hm³) Mar. 13, elevation, 9,007.82 ft (2,745.584 m).

09057000 GREEN MOUNTAIN RESERVOIR.--Lat 39°52'42", long 106°19'45", in NE¼ sec.15, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, in hoist house at right end of dam, 0.6 mi (1 km) upstream from Elliott Creek, and 13 mi (21 km) southeast of Kremmling. DRAINAGE AREA, 598 mi² (1,549 km²), includes 15.3 mi² (39.6 km²) of Elliott Creek above diversion for Elliott Creek feeder canal. PERIOD OF RECORD, November 1942 to current year. REVISED RECORDS, WSP 2124: Drainage area. GAGE, Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service); gage readings have been reduced to elevations NGVD.

Reservoir is formed by an earth and rockfill dam. Dam completed and storage began November 1942. Capacity, 146,900 acre-ft (181 hm³) between elevations 7,800 ft (2,377.4 m), sill of outlet gate, and 7,950 ft (2,423.2 m), top of radial spillway gates. Dead storage, 7,760 acre-ft (9.57 hm³). Figures given represent usable contents. Reservoir is used for power development and storage for replacement of water diverted to South Platte River basin. Water released to fill decrees during late irrigation season when flow of Colorado River is deficient. Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 148,900 acre-ft (184 hm³) July 10, 1947, elevation, 7,950.95 ft (2,423.450 m); minimum since appreciable storage was attained, 388 acre-ft (478,000 hm³) Jan. 12, 1963, elevation, 7,801.70 ft (2,377.958 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 144,700 acre-ft (178 hm³) July 31, Aug. 1, elevation, 7,948.98 ft (2,422.849 m); minimum, 37,950 acre-ft (46.7 hm³) May 21, elevation, 7,874.58 ft (2,400.172 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Date | Elevation | Contents (acre-feet) | Change in contents (acre-feet) | Elevation | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|---|---|---|
| | 09050600 DILLON RESERVOIR | | | 09057000 GREEN MOUNTAIN RESERVOIR | | |
| Sept. 30. . . . . . . . . . . . | 9,014.81 | 247,000 | - | 7,941.25 | 129,000 | - |
| Oct. 31. . . . . . . . . . . . | 9,014.23 | 245,200 | -1,800 | 7,932.55 | 112,600 | -16,400 |
| Nov. 30. . . . . . . . . . . . | 9,012.84 | 240,900 | -4,300 | 7,926.11 | 101,500 | -11,100 |
| Dec. 31. . . . . . . . . . . . | 9,011.36 | 236,400 | -4,500 | 7,919.80 | 91,300 | -10,200 |
| CAL YR 1979 . . . . . . . . | | | +60,800 | | | -7,780 |
| Jan. 31. . . . . . . . . . . . | 9,009.77 | 231,600 | -4,800 | 7,913.59 | 82,040 | -9,260 |
| Feb. 29. . . . . . . . . . . . | 9,008.43 | 227,600 | -4,000 | 7,906.63 | 72,450 | -9,590 |
| Mar. 31. . . . . . . . . . . . | 9,007.90 | 226,100 | -1,500 | 7,895.44 | 58,630 | -13,820 |
| Apr. 30. . . . . . . . . . . . | 9,007.94 | 226,200 | +100 | 7,878.53 | 41,350 | -17,280 |
| May 31. . . . . . . . . . . . | 9,011.05 | 235,400 | +9,200 | 7,881.83 | 44,420 | +3,070 |
| June 30. . . . . . . . . . . . | 9,017.86 | 256,900 | +21,500 | 7,934.50 | 116,200 | +71,780 |
| July 31. . . . . . . . . . . . | 9,017.58 | 255,900 | -1,000 | 7,948.98 | 144,700 | +28,500 |
| Aug. 31. . . . . . . . . . . . | 9,013.27 | 242,200 | -13,700 | 7,942.97 | 132,400 | -12,300 |
| Sept. 30. . . . . . . . . . . . | 9,009.53 | 230,900 | -11,300 | 7,934.02 | 115,300 | -17,100 |
| WTR YR 1980 . . . . . . . . | | | -16,100 | | | -13,700 |

## 09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO

LOCATION.--Lat 39°52'49", long 106°20'00", in SW¼NE¼ sec.15, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, on left bank 0.3 mi (0.5 km) upstream from Elliott Creek, 0.3 mi (0.5 km) downstream from Green Mountain Dam, and 13 mi (21 km) southeast of Kremmling.

DRAINAGE AREA.--599 mi² (1,551 km²), includes 15.3 mi² (39.6 km²) of Elliott Creek above diversion for Elliott Creek feeder canal.

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1943, published as Blue River below Green Mountain Reservoir, near Kremmling.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,682.66 ft (2,341.675 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Prior to Oct. 1, 1951, water-stage recorder at site 3.7 mi (6.0 km) downstream at different datum.

REMARKS.--Records good. Flow regulated by Green Mountain Reservoir since November 1942 (station 09057000). Diversions for irrigation of about 5,000 acres (20.2 km²) above station. Transmountain diversions above station (see elsewhere in this report). Several observations of specific conductance and water temperatures were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/s (113 m³/s) June 4, 1938, gage height, 5.93 ft (1.807 m), site and datum then in use, from rating curve extended above 3,000 ft³/s (85 m³/s); minimum daily (prior to construction of Green Mountain Reservoir), 80 ft³/s (2.27 m³/s) Feb. 18-24, 1938, Feb. 18, 19, 1940; no flow at times in 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,150 ft³/s (32.6 m³/s) at 1845 June 16, gage height, 6.21 ft (1.893 m); minimum daily, 282 ft³/s (7.99 m³/s) Nov. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 431 | 288 | 291 | 294 | 298 | 305 | 487 | 712 | 904 | 664 | 496 | 463 |
| 2 | 427 | 282 | 290 | 292 | 296 | 305 | 490 | 712 | 912 | 676 | 493 | 466 |
| 3 | 445 | 290 | 291 | 293 | 297 | 305 | 484 | 712 | 820 | 672 | 496 | 524 |
| 4 | 432 | 292 | 293 | 292 | 298 | 308 | 478 | 712 | 820 | 672 | 476 | 558 |
| 5 | 429 | 301 | 292 | 294 | 298 | 308 | 478 | 708 | 988 | 660 | 490 | 558 |
| 6 | 429 | 299 | 292 | 295 | 298 | 305 | 478 | 712 | 1020 | 653 | 524 | 562 |
| 7 | 429 | 299 | 292 | 291 | 300 | 310 | 478 | 712 | 1030 | 656 | 583 | 576 |
| 8 | 429 | 297 | 291 | 294 | 303 | 305 | 447 | 712 | 1030 | 660 | 580 | 576 |
| 9 | 429 | 294 | 293 | 295 | 302 | 305 | 451 | 712 | 1020 | 664 | 572 | 576 |
| 10 | 430 | 294 | 291 | 293 | 300 | 305 | 441 | 712 | 1050 | 664 | 572 | 572 |
| 11 | 432 | 292 | 290 | 292 | 300 | 308 | 451 | 712 | 1120 | 646 | 572 | 576 |
| 12 | 434 | 292 | 290 | 294 | 300 | 305 | 451 | 720 | 1120 | 625 | 576 | 576 |
| 13 | 432 | 292 | 290 | 294 | 300 | 312 | 451 | 768 | 1120 | 614 | 576 | 572 |
| 14 | 429 | 291 | 290 | 291 | 300 | 320 | 454 | 752 | 1120 | 622 | 576 | 576 |
| 15 | 430 | 290 | 290 | 295 | 300 | 322 | 451 | 752 | 1130 | 628 | 576 | 576 |
| 16 | 434 | 292 | 290 | 298 | 302 | 322 | 445 | 756 | 1130 | 628 | 576 | 572 |
| 17 | 429 | 290 | 290 | 297 | 302 | 322 | 439 | 760 | 1130 | 625 | 576 | 569 |
| 18 | 438 | 292 | 290 | 301 | 302 | 332 | 445 | 752 | 1130 | 642 | 514 | 572 |
| 19 | 360 | 293 | 290 | 296 | 302 | 355 | 442 | 752 | 952 | 664 | 481 | 518 |
| 20 | 333 | 293 | 290 | 295 | 305 | 379 | 442 | 748 | 1050 | 676 | 478 | 567 |
| 21 | 328 | 292 | 290 | 296 | 305 | 400 | 442 | 752 | 1100 | 672 | 524 | 577 |
| 22 | 329 | 291 | 292 | 295 | 302 | 388 | 445 | 756 | 1100 | 672 | 566 | 578 |
| 23 | 333 | 292 | 292 | 297 | 305 | 388 | 451 | 752 | 1100 | 668 | 566 | 514 |
| 24 | 422 | 293 | 293 | 297 | 305 | 394 | 527 | 760 | 1080 | 646 | 562 | 463 |
| 25 | 327 | 289 | 293 | 296 | 305 | 439 | 680 | 760 | 1040 | 611 | 562 | 448 |
| 26 | 329 | 293 | 294 | 298 | 305 | 469 | 632 | 764 | 924 | 580 | 517 | 448 |
| 27 | 331 | 290 | 294 | 296 | 305 | 478 | 632 | 752 | 852 | 583 | 499 | 446 |
| 28 | 330 | 290 | 293 | 296 | 305 | 484 | 639 | 752 | 740 | 562 | 466 | 443 |
| 29 | 329 | 291 | 295 | 295 | 302 | 493 | 639 | 756 | 740 | 508 | 451 | 440 |
| 30 | 306 | 291 | 294 | 297 | --- | 487 | 680 | 756 | 708 | 496 | 454 | 436 |
| 31 | 292 | --- | 293 | 297 | --- | 481 | --- | 900 | --- | 496 | 457 | --- |
| TOTAL | 12117 | 8764 | 9039 | 9147 | 8742 | 11239 | 14950 | 23048 | 29980 | 19505 | 16407 | 15898 |
| MEAN | 391 | 292 | 292 | 295 | 301 | 363 | 498 | 743 | 999 | 629 | 529 | 530 |
| MAX | 445 | 301 | 295 | 301 | 305 | 493 | 680 | 900 | 1130 | 676 | 583 | 578 |
| MIN | 292 | 282 | 290 | 291 | 296 | 305 | 439 | 708 | 708 | 496 | 451 | 436 |
| AC-FT | 24030 | 17380 | 17930 | 18140 | 17340 | 22290 | 29650 | 45720 | 59470 | 38690 | 32540 | 31530 |

CAL YR 1979 TOTAL 139548 MEAN 382 MAX 1860 MIN 56 AC-FT 276800
WTR YR 1980 TOTAL 178836 MEAN 489 MAX 1130 MIN 282 AC-FT 354700

## 09058000 COLORADO RIVER NEAR KREMMLING, CO

LOCATION.--Lat 40°02'12", long 106°26'22", in NE¼SW¼ sec.23, T.1 N., R.81 W., Grand County, Hydrologic Unit 14010001, on right bank at upstream end of Gore Canyon, 3.0 mi (4.8 km) southwest of Kremmling, and 3.8 mi (6.1 km) downstream from Blue River.

DRAINAGE AREA.--2,382 mi² (6,169 km²).

PERIOD OF RECORD.--July 1904 to September 1918 (published as Grand River near Kremmling). October 1961 to September 1970. October 1971 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,320 ft (2,231 m), from topographic map. See WSP 1313 for history of changes prior to Oct. 1, 1961.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 40,000 acres (162 km²) above station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 21,500 ft³/s (609 m³/s) June 7, 1912, gage height, 21.8 ft (6.64 m), datum then in use, from rating curve extended above 14,000 ft³/s (400 m³/s); minimum observed, 156 ft³/s (1.70 m³/s) Dec. 19, 1907.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,200 ft³/s (119 m³/s) at 1700 May 25, gage height, 10.43 ft (3.179 m); minimum daily, 479 ft³/s (13.6 m³/s) Feb. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 821 | 693 | 580 | 539 | 570 | 509 | 701 | 2050 | 2980 | 1430 | 915 | 780 |
| 2 | 781 | 587 | 580 | 516 | 532 | 497 | 724 | 2080 | 2820 | 1530 | 902 | 725 |
| 3 | 799 | 578 | 580 | 498 | 515 | 511 | 711 | 2150 | 2710 | 1650 | 865 | 880 |
| 4 | 798 | 597 | 580 | 505 | 516 | 518 | 705 | 2290 | 2690 | 1700 | 849 | 940 |
| 5 | 795 | 619 | 580 | 515 | 512 | 517 | 711 | 2430 | 3040 | 1550 | 831 | 921 |
| 6 | 795 | 609 | 580 | 516 | 507 | 525 | 725 | 2570 | 3380 | 1350 | 829 | 827 |
| 7 | 804 | 620 | 580 | 489 | 510 | 518 | 716 | 2870 | 3400 | 1270 | 893 | 741 |
| 8 | 804 | 629 | 580 | 523 | 513 | 511 | 711 | 3130 | 3270 | 1210 | 898 | 762 |
| 9 | 799 | 617 | 580 | 514 | 489 | 513 | 724 | 3090 | 3270 | 1190 | 894 | 876 |
| 10 | 803 | 611 | 580 | 517 | 501 | 512 | 733 | 2920 | 3410 | 1150 | 878 | 870 |
| 11 | 806 | 600 | 580 | 514 | 541 | 511 | 740 | 2910 | 3400 | 1130 | 867 | 863 |
| 12 | 814 | 598 | 580 | 541 | 573 | 513 | 737 | 3020 | 3470 | 1140 | 900 | 869 |
| 13 | 818 | 580 | 580 | 526 | 563 | 507 | 742 | 3010 | 3480 | 1220 | 988 | 845 |
| 14 | 818 | 570 | 580 | 529 | 572 | 529 | 746 | 2640 | 3410 | 1260 | 1000 | 758 |
| 15 | 819 | 574 | 580 | 527 | 524 | 540 | 780 | 2460 | 3180 | 1230 | 1040 | 757 |
| 16 | 824 | 575 | 580 | 523 | 511 | 542 | 810 | 2400 | 3060 | 1170 | 1060 | 828 |
| 17 | 727 | 577 | 580 | 527 | 503 | 513 | 838 | 2530 | 2800 | 1090 | 1060 | 835 |
| 18 | 651 | 591 | 580 | 523 | 504 | 505 | 874 | 2570 | 2490 | 1070 | 1020 | 833 |
| 19 | 633 | 601 | 580 | 532 | 506 | 548 | 947 | 2410 | 2350 | 1090 | 920 | 825 |
| 20 | 673 | 595 | 573 | 519 | 509 | 574 | 1030 | 2480 | 2090 | 1080 | 904 | 853 |
| 21 | 761 | 586 | 605 | 523 | 508 | 595 | 1150 | 2620 | 2010 | 1080 | 913 | 813 |
| 22 | 764 | 579 | 603 | 546 | 510 | 601 | 1240 | 2950 | 1930 | 1060 | 977 | 822 |
| 23 | 761 | 560 | 575 | 548 | 510 | 601 | 1370 | 3370 | 1980 | 1060 | 976 | 836 |
| 24 | 831 | 537 | 533 | 559 | 509 | 602 | 1460 | 3760 | 2100 | 1070 | 980 | 770 |
| 25 | 767 | 578 | 570 | 601 | 489 | 631 | 1620 | 4070 | 2120 | 1090 | 991 | 732 |
| 26 | 759 | 583 | 572 | 507 | 479 | 681 | 1630 | 3960 | 1940 | 1100 | 1040 | 728 |
| 27 | 767 | 573 | 585 | 503 | 491 | 671 | 1590 | 3480 | 1900 | 1070 | 968 | 733 |
| 28 | 766 | 572 | 565 | 501 | 486 | 695 | 1640 | 3190 | 1700 | 1040 | 913 | 667 |
| 29 | 766 | 580 | 514 | 510 | 488 | 699 | 1800 | 3190 | 1500 | 973 | 856 | 671 |
| 30 | 759 | 580 | 530 | 515 | --- | 703 | 1950 | 3160 | 1440 | 925 | 848 | 709 |
| 31 | 732 | --- | 533 | 484 | --- | 705 | --- | 3160 | --- | 936 | 849 | --- |
| TOTAL | 24015 | 17749 | 17778 | 16190 | 14941 | 17597 | 30855 | 88920 | 79320 | 36914 | 28824 | 24069 |
| MEAN | 775 | 592 | 573 | 522 | 515 | 568 | 1029 | 2868 | 2644 | 1191 | 930 | 802 |
| MAX | 831 | 693 | 605 | 601 | 573 | 705 | 1950 | 4070 | 3480 | 1700 | 1060 | 940 |
| MIN | 633 | 537 | 514 | 484 | 479 | 497 | 701 | 2050 | 1440 | 925 | 829 | 667 |
| AC-FT | 47630 | 35210 | 35260 | 32110 | 29640 | 34900 | 61200 | 176400 | 157300 | 73220 | 57170 | 47740 |

CAL YR 1979 TOTAL 385036 MEAN 1055 MAX 4070 MIN 431 AC-FT 763700
WTR YR 1980 TOTAL 397172 MEAN 1085 MAX 4070 MIN 479 AC-FT 787800

## 09058500 PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO

LOCATION.--Lat 39°42'29", long 106°25'34", Eagle County, Hydrologic Unit 14010001, on left bank 1.4 mi (2.3 km) upstream from Dickson Creek, 2.0 mi (3.2 km) downstream from Piney Lake, and 8.5 mi (13.7 km) north of Minturn.

DRAINAGE AREA.--13.0 mi² (33.7 km²).

PERIOD OF RECORD.--October 1947 to September 1954, October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 9,145.25 ft (2,787.472 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Prior to October 1963, water-stage recorder at site 15 ft (5 m) upstream at present datum.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years, 24.0 ft³/s (0.680 m³/s), 17,390 acre-ft/yr (21.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 413 ft³/s (11.7 m³/s) July 5, 1975, gage height, 5.47 ft (1.667 m); maximum gage height observed, 6.44 ft (1.963 m) Apr. 13, 1977; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.25 m³/s), and maximum (*):

| Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) | Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Apr. 24 | 2200 | ice jam | | *5.24 | 1.597 | June 12 | 0300 | *266 | 7.53 | 4.87 | 1.484 |
| May 24 | 0200 | 165 | 4.67 | 4.50 | 1.372 | | | | | | |

Minimum daily discharge, 0.66 ft³/s (0.019 m³/s) Jan. 11.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.9 | 1.3 | 1.0 | .95 | .94 | .98 | 1.3 | 28 | 98 | 157 | 12 | 4.3 |
| 2 | 1.9 | 1.4 | 1.1 | .96 | .94 | .98 | 1.3 | 23 | 80 | 143 | 11 | 4.0 |
| 3 | 1.9 | 1.5 | 1.1 | .96 | .94 | .98 | 1.3 | 19 | 98 | 157 | 10 | 3.7 |
| 4 | 1.7 | 1.5 | 1.1 | .96 | .94 | .98 | 1.3 | 19 | 139 | 119 | 9.9 | 3.5 |
| 5 | 1.6 | 1.4 | 1.1 | .96 | .94 | .98 | 1.4 | 26 | 165 | 100 | 8.6 | 3.3 |
| 6 | 1.6 | 1.4 | 1.1 | .96 | .94 | .96 | 1.4 | 35 | 170 | 84 | 7.7 | 3.3 |
| 7 | 1.6 | 1.4 | 1.1 | .96 | .92 | .96 | 1.5 | 40 | 157 | 78 | 7.2 | 3.1 |
| 8 | 1.6 | 1.4 | 1.1 | .96 | .88 | .96 | 1.4 | 53 | 145 | 70 | 6.8 | 3.3 |
| 9 | 1.5 | 1.3 | 1.1 | .96 | .90 | .96 | 1.4 | 45 | 170 | 70 | 6.5 | 6.5 |
| 10 | 1.5 | 1.3 | 1.1 | .86 | .90 | .96 | 1.5 | 40 | 188 | 68 | 6.2 | 6.2 |
| 11 | 1.5 | 1.3 | 1.0 | .66 | .88 | .96 | 1.5 | 42 | 205 | 68 | 5.9 | 16 |
| 12 | 1.5 | 1.3 | .94 | .90 | .90 | .96 | 1.5 | 40 | 210 | 63 | 5.6 | 9.9 |
| 13 | 1.5 | 1.2 | 1.1 | 1.0 | .90 | .96 | 1.4 | 29 | 192 | 55 | 5.2 | 6.8 |
| 14 | 1.5 | 1.2 | 1.1 | 1.0 | .94 | .96 | 1.5 | 23 | 175 | 44 | 5.2 | 5.9 |
| 15 | 1.4 | 1.3 | 1.1 | 1.0 | .90 | .94 | 1.5 | 21 | 157 | 38 | 14 | 4.9 |
| 16 | 1.5 | 1.3 | 1.1 | 1.0 | .92 | .94 | 1.6 | 23 | 145 | 37 | 16 | 4.6 |
| 17 | 1.5 | 1.3 | 1.1 | 1.0 | .94 | .94 | 1.8 | 23 | 139 | 34 | 11 | 4.0 |
| 18 | 1.6 | 1.3 | 1.1 | 1.0 | .94 | 1.0 | 1.9 | 20 | 143 | 32 | 8.6 | 3.7 |
| 19 | 1.6 | 1.2 | 1.0 | .96 | .94 | 1.0 | .94 | 26 | 143 | 30 | 6.5 | 3.5 |
| 20 | 1.7 | 1.2 | 1.0 | .96 | .94 | 1.1 | 1.6 | 34 | 125 | 28 | 5.9 | 4.0 |
| 21 | 2.1 | 1.1 | 1.0 | .96 | .80 | 1.1 | 2.4 | 50 | 127 | 23 | 5.2 | 4.6 |
| 22 | 2.9 | .94 | 1.0 | .92 | .70 | 1.2 | 3.4 | 84 | 127 | 22 | 4.6 | 4.0 |
| 23 | 2.1 | 1.0 | 1.0 | .88 | .96 | 1.2 | 4.6 | 131 | 137 | 20 | 4.3 | 3.5 |
| 24 | 1.9 | 1.1 | 1.0 | .90 | .96 | 1.2 | 9.0 | 153 | 143 | 19 | 4.6 | 3.3 |
| 25 | 1.9 | 1.1 | 1.0 | .92 | .96 | 1.3 | 15 | 107 | 139 | 16 | 6.2 | 3.1 |
| 26 | 1.9 | 1.1 | 1.0 | .95 | .96 | 1.3 | 19 | 86 | 147 | 18 | 8.1 | 3.1 |
| 27 | 1.9 | 1.1 | .98 | .96 | .98 | 1.3 | 24 | 81 | 149 | 15 | 6.9 | 2.9 |
| 28 | 1.9 | 1.1 | .98 | .96 | .98 | 1.3 | 28 | 86 | 141 | 14 | 5.9 | 2.9 |
| 29 | 1.7 | 1.0 | .98 | .90 | .98 | 1.2 | 30 | 96 | 127 | 13 | 5.2 | 2.7 |
| 30 | 1.4 | .96 | .98 | .88 | --- | 1.2 | 32 | 63 | 147 | 15 | 4.6 | 2.7 |
| 31 | 1.3 | --- | .98 | .90 | --- | 1.3 | --- | 89 | --- | 14 | 4.6 | --- |
| TOTAL | 53.1 | 37.00 | 32.34 | 29.12 | 26.72 | 33.06 | 196.44 | 1635 | 4428 | 1664 | 230.0 | 137.3 |
| MEAN | 1.71 | 1.23 | 1.04 | .94 | .92 | 1.07 | 6.55 | 52.7 | 148 | 53.7 | 7.42 | 4.58 |
| MAX | 2.9 | 1.5 | 1.1 | 1.0 | .98 | 1.3 | 32 | 153 | 210 | 157 | 16 | 16 |
| MIN | 1.3 | .94 | .94 | .66 | .70 | .94 | .94 | 19 | 80 | 13 | 4.3 | 2.7 |
| AC-FT | 105 | 73 | 64 | 58 | 53 | 66 | 390 | 3240 | 8780 | 3300 | 456 | 272 |

CAL YR 1979 TOTAL 10114.44 MEAN 27.7 MAX 210 MIN .94 AC-FT 20060
WTR YR 1980 TOTAL 8502.08 MEAN 23.2 MAX 210 MIN .66 AC-FT 16860

NOTE.--NO GAGE-HEIGHT RECORD NOV. 1 TO APR. 15.

## 09058610 DICKSON CREEK NEAR VAIL, CO

LOCATION.--Lat 39°42'14", long 106°27'25", Eagle County, Hydrologic Unit 14010001, on right bank 0.6 mi (1.0 km) upstream from Freeman Creek, 1.0 mi (1.6 km) upstream from mouth, and 6 mi (9.7 km) northwest of Vail.

DRAINAGE AREA.--3.41 mi² (8.83 km²).

PERIOD OF RECORD.--October 1971 to current year. Prior to October 1972, published as "near Minturn."

GAGE.--Water-stage recorder. Altitude of gage is 9,245 ft (2,818 m), from topographic map.

REMARKS.--Records good except those for period of no gage height record, which are poor. Diversion by Willy N. ditch 75 ft (23 m) above station for irrigation of hay meadows below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 2.60 ft³/s (0.074 m³/s), 1,880 acre-ft/yr (2.32 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48 ft³/s (1.36 m³/s) May 6, 1979, gage height, 2.75 ft (0.838 m); maximum gage height recorded, 2.92 ft (0.890 m) Nov. 16, 1973 (backwater from ice); no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14 ft³/s (0.40 m³/s) at 1900 June 10, gage height, 2.30 ft (0.701 m); minimum daily, 0.50 ft³/s (0.014 m³/s) Jan. 11, Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.3 | 1.2 | .80 | .70 | .70 | .70 | .60 | .96 | 8.4 | 2.8 | 1.2 | .96 |
| 2 | 1.3 | 1.2 | .90 | .80 | .70 | .70 | .60 | .90 | 8.8 | 2.8 | 1.2 | .96 |
| 3 | 1.3 | 1.2 | .90 | .70 | .70 | .70 | .60 | .96 | 8.8 | 2.7 | 1.2 | 1.1 |
| 4 | 1.2 | 1.3 | 1.0 | .80 | .70 | .70 | .60 | 1.2 | 9.2 | 2.4 | 1.1 | 1.1 |
| 5 | 1.2 | 1.3 | 1.1 | .80 | .70 | .60 | .60 | 1.5 | 10 | 2.4 | 1.2 | 1.1 |
| 6 | 1.2 | 1.3 | 1.1 | .70 | .70 | .60 | .60 | 1.7 | 11 | 2.2 | 1.2 | 1.1 |
| 7 | 1.2 | 1.3 | 1.1 | .70 | .60 | .60 | .60 | 1.8 | 11 | 2.4 | 1.1 | 1.2 |
| 8 | 1.2 | 1.3 | 1.1 | .70 | .60 | .60 | .60 | 1.8 | 11 | 2.2 | 1.1 | 1.5 |
| 9 | 1.3 | 1.4 | 1.1 | .70 | .50 | .60 | .60 | 1.8 | 11 | 2.4 | 1.2 | 1.4 |
| 10 | 1.3 | 1.3 | 1.0 | .60 | .60 | .60 | .70 | 2.1 | 12 | 2.2 | 1.1 | 1.4 |
| 11 | 1.2 | 1.3 | 1.0 | .50 | .60 | .60 | .60 | 2.7 | 13 | 2.2 | 1.1 | 1.4 |
| 12 | 1.3 | 1.2 | 1.0 | .60 | .60 | .60 | .60 | 2.1 | 13 | 2.1 | 1.2 | 1.2 |
| 13 | 1.2 | 1.2 | 1.0 | .80 | .60 | .60 | .70 | 1.8 | 12 | 1.9 | 1.2 | 1.2 |
| 14 | 1.2 | 1.3 | 1.0 | .90 | .70 | .60 | .70 | 1.7 | 10 | 1.8 | 1.3 | 1.2 |
| 15 | 1.2 | 1.2 | .90 | 1.0 | .70 | .60 | .70 | 1.7 | 9.5 | 1.8 | 1.1 | 1.2 |
| 16 | 1.2 | 1.2 | .80 | .90 | .70 | .60 | .67 | 1.8 | 8.4 | 1.6 | 1.2 | 1.2 |
| 17 | 1.3 | 1.2 | .80 | .80 | .70 | .60 | .71 | 1.8 | 8.1 | 1.5 | 1.1 | 1.2 |
| 18 | 1.3 | 1.2 | .70 | .80 | .60 | .60 | .85 | 1.7 | 7.4 | 1.5 | 1.1 | 1.2 |
| 19 | 1.3 | 1.2 | .70 | .70 | .70 | .60 | .96 | 2.1 | 7.0 | 1.5 | 1.1 | 1.2 |
| 20 | 1.4 | 1.2 | .80 | .70 | .70 | .60 | 1.1 | 3.2 | 6.4 | 1.5 | 1.1 | 1.5 |
| 21 | 1.4 | 1.2 | .80 | .70 | .70 | .60 | 1.1 | 5.0 | 5.5 | 1.4 | 1.1 | 1.2 |
| 22 | 1.3 | 1.2 | .80 | .70 | .70 | .80 | 1.1 | 7.0 | 5.0 | 1.4 | 1.1 | 1.2 |
| 23 | 1.3 | 1.2 | .80 | .60 | .70 | .80 | .90 | 9.5 | 4.6 | 1.4 | 1.2 | 1.2 |
| 24 | 1.3 | 1.1 | .80 | .60 | .60 | .70 | .79 | 8.8 | 4.1 | 1.3 | 1.2 | 1.2 |
| 25 | 1.4 | 1.1 | .80 | .80 | .60 | .80 | .79 | 7.4 | 3.6 | 1.3 | 1.5 | 1.2 |
| 26 | 1.4 | 1.2 | .80 | .70 | .60 | .70 | .85 | 6.4 | 3.4 | 1.3 | 1.4 | 1.2 |
| 27 | 1.3 | 1.2 | .80 | .70 | .60 | .70 | .79 | 6.4 | 3.2 | 1.2 | 1.1 | 1.2 |
| 28 | 1.3 | 1.2 | .70 | .70 | .60 | .70 | .96 | 7.4 | 3.2 | 1.2 | 1.1 | 1.2 |
| 29 | 1.3 | .80 | .60 | .70 | .70 | .70 | 1.1 | 7.4 | 3.0 | 1.2 | .96 | 1.3 |
| 30 | 1.2 | .80 | .60 | .70 | --- | .60 | 1.1 | 7.4 | 2.8 | 1.4 | .90 | 1.3 |
| 31 | 1.1 | --- | .70 | .70 | --- | .60 | --- | 8.1 | --- | 1.2 | .90 | --- |
| TOTAL | 39.4 | 36.00 | 27.00 | 22.50 | 18.90 | 20.10 | 23.17 | 116.12 | 234.4 | 56.2 | 35.56 | 36.52 |
| MEAN | 1.27 | 1.20 | .87 | .73 | .65 | .65 | .77 | 3.75 | 7.81 | 1.81 | 1.15 | 1.22 |
| MAX | 1.4 | 1.4 | 1.1 | 1.0 | .70 | .80 | 1.1 | 9.5 | 13 | 2.8 | 1.5 | 1.5 |
| MIN | 1.1 | .80 | .60 | .50 | .50 | .60 | .60 | .90 | 2.8 | 1.2 | .90 | .96 |
| AC-FT | 78 | 71 | 54 | 45 | 37 | 40 | 46 | 230 | 465 | 111 | 71 | 72 |

CAL YR 1979 TOTAL 1315.76 MEAN 3.60 MAX 42 MIN .44 AC-FT 2610
WTR YR 1980 TOTAL 665.87 MEAN 1.82 MAX 13 MIN .50 AC-FT 1320

NOTE.--NO GAGE-HEIGHT RECORD DEC. 15 TO APR. 15.

## 09058700 FREEMAN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°41'55", long 106°26'41", Eagle County, Hydrologic Unit 14210001, on right bank 0.8 mi (1.3 km) upstream from mouth and 7.5 mi (12.1 km) north of Minturn.

DRAINAGE AREA.--2.94 $mi^2$ (7.61 $km^2$).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,335 ft (2,845 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 1.23 $ft^3/s$ (0.035 $m^3/s$), 891 acre-ft/yr (1.10 $hm^3/yr$).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35 $ft^3/s$ (0.99 $m^3/s$) May 28, 1976, gage height, 2.60 ft (0.792 m); maximum gage height, 3.51 ft (1.070 m) May 18, 1973 (backwater from ice); no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19 $ft^3/s$ (0.538 $m^3/s$) at 1700 May 28, gage height, 2.22 ft (0.677 m), no peak above base of 25 $ft^3/s$ (0.71 $m^3/s$); minimum daily, 0.06 $ft^3/s$ (0.002 $m^3/s$) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .14 | .10 | .10 | .10 | .10 | .11 | .16 | 1.4 | 11 | 1.3 | .28 | .15 |
| 2 | .12 | .10 | .10 | .10 | .10 | .11 | .16 | 1.4 | 10 | 1.3 | .25 | .14 |
| 3 | .12 | .10 | .10 | .10 | .10 | .11 | .17 | 1.4 | 9.9 | 1.2 | .25 | .13 |
| 4 | .12 | .10 | .10 | .10 | .10 | .11 | .17 | 1.5 | 10 | .95 | .25 | .13 |
| 5 | .14 | .10 | .10 | .10 | .10 | .11 | .18 | 1.7 | 11 | .85 | .25 | .13 |
| 6 | .16 | .11 | .10 | .10 | .10 | .11 | .18 | 2.0 | 11 | .85 | .25 | .13 |
| 7 | .14 | .11 | .10 | .10 | .10 | .11 | .18 | 2.4 | 10 | .89 | .25 | .13 |
| 8 | .13 | .11 | .10 | .10 | .10 | .11 | .18 | 2.6 | 9.5 | .91 | .22 | .15 |
| 9 | .14 | .11 | .10 | .10 | .10 | .11 | .19 | 2.8 | 9.4 | .77 | .20 | .24 |
| 10 | .13 | .11 | .10 | .09 | .10 | .11 | .19 | 2.6 | 9.3 | .63 | .20 | .26 |
| 11 | .14 | .11 | .10 | .06 | .10 | .11 | .19 | 2.4 | 8.9 | .85 | .15 | .31 |
| 12 | .15 | .11 | .09 | .09 | .10 | .11 | .19 | 2.2 | 8.2 | .77 | .15 | .26 |
| 13 | .10 | .11 | .10 | .11 | .10 | .11 | .20 | 2.2 | 7.3 | .73 | .18 | .22 |
| 14 | .10 | .11 | .10 | .11 | .11 | .11 | .22 | 2.0 | 6.4 | .66 | .18 | .20 |
| 15 | .12 | .11 | .10 | .11 | .11 | .11 | .26 | 2.2 | 5.5 | .57 | .30 | .18 |
| 16 | .15 | .11 | .10 | .11 | .11 | .11 | .32 | 2.4 | 4.8 | .51 | .32 | .17 |
| 17 | .13 | .11 | .10 | .11 | .11 | .12 | .40 | 2.3 | 4.3 | .43 | .30 | .19 |
| 18 | .15 | .11 | .10 | .11 | .11 | .12 | .50 | 2.1 | 3.9 | .42 | .25 | .14 |
| 19 | .11 | .11 | .10 | .11 | .11 | .13 | .60 | 2.8 | 3.3 | .37 | .22 | .12 |
| 20 | .13 | .11 | .10 | .10 | .11 | .13 | .80 | 4.3 | 3.0 | .39 | .20 | .16 |
| 21 | .21 | .11 | .10 | .10 | .10 | .14 | 1.0 | 6.7 | 2.8 | .34 | .18 | .19 |
| 22 | .18 | .09 | .10 | .10 | .08 | .15 | 1.2 | 9.0 | 2.4 | .33 | .15 | .15 |
| 23 | .17 | .09 | .10 | .09 | .11 | .15 | 1.3 | 12 | 2.2 | .33 | .15 | .15 |
| 24 | .22 | .09 | .10 | .10 | .11 | .15 | 1.2 | 14 | 2.0 | .33 | .15 | .14 |
| 25 | .22 | .10 | .10 | .10 | .11 | .16 | 1.1 | 12 | 1.8 | .33 | .20 | .11 |
| 26 | .21 | .10 | .10 | .10 | .11 | .16 | 1.1 | 11 | 1.6 | .32 | .30 | .12 |
| 27 | .20 | .10 | .10 | .10 | .11 | .16 | 1.2 | 12 | 1.3 | .30 | .25 | .12 |
| 28 | .16 | .10 | .10 | .10 | .11 | .16 | 1.3 | 13 | 1.1 | .28 | .20 | .15 |
| 29 | .13 | .09 | .10 | .10 | .11 | .15 | 1.5 | 13 | 1.4 | .28 | .18 | .15 |
| 30 | .14 | .09 | .10 | .09 | --- | .16 | 1.5 | 13 | 1.3 | .35 | .16 | .15 |
| 31 | .12 | --- | .10 | .10 | --- | .16 | --- | 12 | --- | .35 | .16 | --- |
| TOTAL | 4.58 | 3.11 | 3.09 | 3.09 | 3.02 | 3.96 | 17.84 | 172.4 | 174.6 | 18.89 | 6.73 | 4.97 |
| MEAN | .15 | .10 | .10 | .10 | .10 | .13 | .59 | 5.56 | 5.82 | .61 | .22 | .17 |
| MAX | .22 | .11 | .10 | .11 | .11 | .16 | 1.5 | 14 | 11 | 1.3 | .32 | .31 |
| MIN | .10 | .09 | .09 | .06 | .08 | .11 | .16 | 1.4 | 1.1 | .28 | .15 | .11 |
| AC-FT | 9.1 | 6.2 | 6.1 | 6.1 | 6.0 | 7.9 | 35 | 342 | 346 | 37 | 13 | 9.9 |

CAL YR 1979 TOTAL 630.51 MEAN 1.73 MAX 19 MIN .02 AC-FT 1250
WTR YR 1980 TOTAL 416.28 MEAN 1.14 MAX 14 MIN .06 AC-FT 826

NOTE.--NO GAGE-HEIGHT RECORD NOV. 1 TO MAY 12.

## 09058800 EAST MEADOW CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°43'54", long 106°25'34", Eagle County, Hydrologic Unit 14010001, on left bank 1.4 mi (2.3 km) upstream from mouth and 10 mi (16 km) north of Minturn.

DRAINAGE AREA.--3.61 mi² (9.35 km²).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,455 ft (2,882 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 4.30 ft³/s (0.122 m³/s), 3,120 acre-ft/yr (3.85 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74 ft³/s (2.10 m³/s) July 4, 1975, gage height, 2.13 ft (0.649 m); maximum gage height, 2.22 ft (0.677 m) May 12, 1970 (backwater from ice); minimum daily discharge, 0.32 ft³/s (0.009 m³/s) Jan. 7, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 39 ft³/s (1.10 m³/s) at 1700 June 11, gage height, 1.62 ft (0.494 m) only peak above base of 40 ft³/s (1.1 m³/s); minimum daily, 0.50 ft³/s (0.014 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .92 | .90 | .60 | .70 | .70 | .90 | .80 | 1.9 | 17 | 12 | 1.9 | 1.3 |
| 2 | .92 | .80 | .70 | .70 | .80 | .90 | .80 | 1.8 | 17 | 12 | 1.8 | 1.3 |
| 3 | .86 | .80 | .80 | .60 | .80 | .80 | .80 | 1.8 | 19 | 12 | 1.8 | 1.3 |
| 4 | .86 | .90 | .80 | .70 | .90 | .80 | .80 | 2.1 | 22 | 9.5 | 1.6 | 1.2 |
| 5 | .80 | .90 | .90 | .70 | .80 | .80 | .80 | 2.6 | 24 | 7.7 | 1.5 | 1.2 |
| 6 | .80 | .80 | .90 | .70 | .80 | .80 | .80 | 3.0 | 22 | 7.0 | 1.3 | 1.2 |
| 7 | .80 | 1.0 | .80 | .70 | .70 | .90 | .70 | 3.2 | 22 | 6.4 | 1.3 | 1.2 |
| 8 | .77 | .90 | .80 | .70 | .60 | .80 | .80 | 3.4 | 22 | 6.4 | 1.3 | 1.8 |
| 9 | .77 | .90 | .80 | .70 | .60 | .80 | .80 | 3.2 | 26 | 5.7 | 1.3 | 1.5 |
| 10 | .77 | .90 | .80 | .60 | .60 | .80 | .80 | 3.2 | 30 | 5.4 | 1.3 | 2.0 |
| 11 | .77 | .90 | .70 | .50 | .60 | .80 | .70 | 4.1 | 33 | 5.0 | 1.2 | 1.6 |
| 12 | .77 | .90 | .60 | .70 | .60 | .90 | .80 | 3.9 | 30 | 5.0 | 1.2 | 1.2 |
| 13 | .77 | .90 | .60 | .80 | .70 | .90 | .80 | 2.8 | 28 | 4.3 | 1.2 | 1.1 |
| 14 | .77 | .90 | .60 | 1.0 | .70 | .90 | .90 | 2.4 | 26 | 4.1 | 1.2 | 1.0 |
| 15 | .77 | .90 | .60 | 1.0 | .80 | .90 | 1.0 | 2.4 | 24 | 3.6 | 2.4 | 1.0 |
| 16 | .80 | .90 | .70 | .90 | .80 | .90 | 1.0 | 2.6 | 22 | 3.4 | 1.8 | .98 |
| 17 | .80 | .90 | .70 | .80 | .70 | .90 | 1.0 | 2.5 | 20 | 3.0 | 1.5 | .92 |
| 18 | .80 | 1.0 | .60 | .70 | .80 | .90 | 1.0 | 2.5 | 19 | 3.0 | 1.3 | .92 |
| 19 | .80 | 1.0 | .60 | .70 | .80 | .90 | 1.1 | 2.6 | 19 | 2.8 | 1.2 | .86 |
| 20 | .80 | 1.0 | .70 | .70 | .80 | .80 | 1.2 | 3.4 | 19 | 2.6 | 1.2 | 1.1 |
| 21 | .80 | .90 | .70 | .70 | .70 | .80 | 1.2 | 6.8 | 18 | 2.5 | 1.2 | .98 |
| 22 | .74 | .80 | .80 | .60 | .80 | .90 | 1.2 | 9.5 | 17 | 2.4 | 1.2 | .92 |
| 23 | .74 | .70 | .80 | .60 | .70 | .80 | 1.3 | 13 | 17 | 2.5 | 1.1 | .92 |
| 24 | .74 | .80 | .70 | .70 | .70 | .90 | 1.3 | 14 | 16 | 2.4 | 1.3 | .86 |
| 25 | .77 | .80 | .80 | .80 | .70 | .90 | 1.3 | 12 | 17 | 2.4 | 1.5 | .86 |
| 26 | .80 | .90 | .70 | .70 | .70 | .80 | 1.3 | 12 | 18 | 2.4 | 1.6 | .80 |
| 27 | .74 | .90 | .70 | .70 | .80 | .80 | 1.3 | 12 | 17 | 2.2 | 1.3 | .80 |
| 28 | .70 | .70 | .70 | .70 | .80 | .80 | 1.9 | 15 | 14 | 2.0 | 1.3 | .80 |
| 29 | .70 | .60 | .60 | .70 | .80 | .80 | 2.4 | 14 | 12 | 2.0 | 1.3 | .80 |
| 30 | .70 | .60 | .60 | .70 | --- | .80 | 2.2 | 14 | 12 | 2.4 | 1.3 | .77 |
| 31 | .70 | --- | .70 | .60 | --- | .80 | --- | 17 | --- | 2.0 | 1.4 | --- |
| TOTAL | 24.25 | 25.80 | 22.10 | 22.10 | 21.30 | 26.20 | 32.80 | 194.7 | 619 | 146.1 | 43.8 | 33.19 |
| MEAN | .78 | .86 | .71 | .71 | .73 | .85 | 1.09 | 6.28 | 20.6 | 4.71 | 1.41 | 1.11 |
| MAX | .92 | 1.0 | .90 | 1.0 | .90 | .90 | 2.4 | 17 | 33 | 12 | 2.4 | 2.0 |
| MIN | .70 | .60 | .60 | .50 | .60 | .80 | .70 | 1.8 | 12 | 2.0 | 1.1 | .77 |
| AC-FT | 48 | 51 | 44 | 44 | 42 | 52 | 65 | 386 | 1230 | 290 | 87 | 66 |

CAL YR 1979 TOTAL 1940.06 MEAN 5.32 MAX 40 MIN .32 AC-FT 3850
WTR YR 1980 TOTAL 1211.34 MEAN 3.31 MAX 33 MIN .50 AC-FT 2400

NOTE.--NO GAGE-HEIGHT RECORD OCT. 30 TO APR. 23.

## 09059500 PINEY RIVER NEAR STATE BRIDGE, CO

LOCATION.--Lat 39°48'00", long 106°35'00", in sec.16, T.3 S., R.82 W., Eagle County, Hydrologic Unit 14010001, on left bank at downstream side of private bridge at Perry Olsen Ranch 1.2 mi (1.9 km) downstream from Rock Creek, and 6.0 mi (9.7 km) southeast of State Bridge.

DRAINAGE AREA.--86.2 mi² (223.3 km²).

PERIOD OF RECORD.--May 1944 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,272.35 ft (2,216.612 m), National Geodetic Vertical Datum of 1929. Prior to July 29, 1944, nonrecording gage, and July 29, 1944, to Oct. 24, 1947, water-stage recorder, at datum 2.38 ft (0.725 m) higher.

REMARKS.--Records good except for winter period and those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 400 acres (1.62 km²) of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--36 years, 74.1 ft³/s (2.099 m³/s) 53,680 acre-ft/yr (66.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110 ft³/s (31.4 m³/s) June 8, 1952, gage height, 5.61 ft (1.710 m); minimum daily, 1.9 ft³/s (0.054 m³/s) Sept. 1, 18, 19, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 627 ft³/s (17.8 m³/s) at 0500 June 12, gage height, 4.46 ft (1.359 m), only peak above base of 520 ft³/s (15 m³/s); minimum daily, 5.0 ft³/s (0.142 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | 6.8 | 7.0 | 7.0 | 8.0 | 9.5 | 9.0 | 92 | 408 | 204 | 29 | 14 |
| 2 | 10 | 9.0 | 8.0 | 7.0 | 8.0 | 8.5 | 9.5 | 87 | 378 | 183 | 27 | 13 |
| 3 | 9.7 | 9.0 | 8.5 | 7.0 | 8.0 | 8.5 | 9.0 | 91 | 423 | 188 | 26 | 13 |
| 4 | 9.3 | 9.5 | 8.5 | 7.5 | 8.0 | 8.5 | 9.5 | 104 | 495 | 148 | 26 | 12 |
| 5 | 9.1 | 9.5 | 9.0 | 7.0 | 7.5 | 8.5 | 10 | 141 | 559 | 126 | 24 | 11 |
| 6 | 9.0 | 9.0 | 8.5 | 7.0 | 7.5 | 9.0 | 10 | 166 | 579 | 107 | 23 | 11 |
| 7 | 9.0 | 9.5 | 8.0 | 7.0 | 7.5 | 9.0 | 10 | 198 | 565 | 101 | 22 | 11 |
| 8 | 9.0 | 9.5 | 8.0 | 7.0 | 6.5 | 9.0 | 9.5 | 208 | 547 | 96 | 21 | 14 |
| 9 | 8.8 | 9.5 | 7.5 | 7.0 | 5.5 | 8.5 | 10 | 195 | 578 | 90 | 20 | 20 |
| 10 | 8.9 | 9.5 | 7.5 | 6.0 | 6.5 | 9.0 | 12 | 179 | 586 | 87 | 19 | 18 |
| 11 | 8.8 | 9.0 | 8.0 | 5.0 | 7.0 | 9.0 | 12 | 196 | 591 | 88 | 17 | 34 |
| 12 | 8.8 | 9.0 | 6.5 | 8.0 | 7.5 | 8.5 | 11 | 212 | 589 | 87 | 16 | 25 |
| 13 | 8.9 | 9.0 | 6.0 | 9.0 | 8.0 | 8.0 | 13 | 158 | 550 | 83 | 15 | 20 |
| 14 | 9.0 | 8.5 | 6.5 | 10 | 8.0 | 8.5 | 15 | 130 | 504 | 72 | 15 | 17 |
| 15 | 9.0 | 8.5 | 7.0 | 9.5 | 8.5 | 9.0 | 19 | 119 | 447 | 67 | 28 | 15 |
| 16 | 9.3 | 8.5 | 7.0 | 8.5 | 8.5 | 9.0 | 24 | 121 | 397 | 64 | 34 | 14 |
| 17 | 9.4 | 9.0 | 7.0 | 8.0 | 8.0 | 8.0 | 28 | 139 | 365 | 58 | 26 | 13 |
| 18 | 9.5 | 9.5 | 6.5 | 7.5 | 8.5 | 9.0 | 34 | 119 | 357 | 55 | 22 | 12 |
| 19 | 9.4 | 10 | 6.5 | 7.0 | 8.5 | 9.5 | 42 | 141 | 338 | 52 | 19 | 12 |
| 20 | 9.3 | 9.5 | 7.0 | 7.0 | 8.0 | 10 | 52 | 186 | 295 | 49 | 17 | 16 |
| 21 | 11 | 9.0 | 7.5 | 7.0 | 7.5 | 11 | 60 | 275 | 281 | 45 | 16 | 14 |
| 22 | 9.2 | 8.5 | 7.5 | 6.5 | 8.5 | 11 | 67 | 383 | 269 | 43 | 15 | 13 |
| 23 | 9.7 | 8.0 | 7.0 | 6.0 | 8.0 | 10 | 63 | 494 | 267 | 41 | 14 | 13 |
| 24 | 10 | 8.5 | 7.0 | 7.5 | 7.5 | 10 | 58 | 512 | 268 | 38 | 15 | 13 |
| 25 | 9.8 | 9.0 | 7.5 | 8.5 | 7.5 | 10 | 72 | 426 | 261 | 36 | 20 | 12 |
| 26 | 10 | 9.0 | 7.0 | 8.0 | 8.0 | 10 | 76 | 351 | 272 | 37 | 26 | 12 |
| 27 | 9.9 | 8.5 | 7.0 | 8.0 | 9.0 | 9.5 | 79 | 335 | 264 | 34 | 21 | 12 |
| 28 | 9.1 | 6.5 | 7.0 | 8.0 | 9.0 | 9.5 | 90 | 377 | 227 | 31 | 18 | 12 |
| 29 | 9.5 | 5.5 | 5.5 | 8.0 | 9.5 | 9.0 | 97 | 413 | 180 | 29 | 15 | 11 |
| 30 | 8.7 | 6.5 | 5.5 | 7.5 | --- | 9.0 | 103 | 350 | 185 | 35 | 16 | 10 |
| 31 | 5.7 | --- | 6.0 | 6.5 | --- | 9.0 | --- | 394 | --- | 31 | 16 | --- |
| TOTAL | 286.8 | 260.3 | 223.0 | 230.5 | 228.0 | 284.5 | 1113.5 | 7292 | 12025 | 2405 | 638 | 437 |
| MEAN | 9.25 | 8.68 | 7.19 | 7.44 | 7.86 | 9.18 | 37.1 | 235 | 401 | 77.6 | 20.6 | 14.6 |
| MAX | 11 | 10 | 9.0 | 10 | 9.5 | 11 | 103 | 512 | 591 | 204 | 34 | 34 |
| MIN | 5.7 | 5.5 | 5.5 | 5.0 | 5.5 | 8.0 | 9.0 | 87 | 180 | 29 | 14 | 10 |
| AC-FT | 569 | 516 | 442 | 457 | 452 | 564 | 2210 | 14460 | 23850 | 4770 | 1270 | 867 |

CAL YR 1979 TOTAL 31746.9 MEAN 87.0 MAX 620 MIN 5.5 AC-FT 62970
WTR YR 1980 TOTAL 25423.6 MEAN 69.5 MAX 591 MIN 5.0 AC-FT 50430

NOTE.--NO GAGE-HEIGHT RECORD NOV. 13 TO APR. 15.

## 09060500 ROCK CREEK NEAR TOPONAS, CO

LOCATION.--Lat 40°02'28", long 106°39'19", in NW¼ sec.24, T.1 N., R.83 W., Routt County, Hydrologic Unit 14010001, on right bank 0.1 mi (0.2 km) upstream from Horse Creek, 0.8 mi (1.3 km) downstream from Shoe and Stocking Creek, and 8 mi (13 km) east of Toponas.

DRAINAGE AREA.--47.6 mi² (123.3 km²).

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,544 ft (2,604 m), from topographic map.

REMARKS.--Records fair except those for winter period and those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--28 years, 32.9 ft³/s (0.932 m³/s), 23,840 acre-ft/yr (29.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 494 ft³/s (14.0 m³/s) May 21, 1976, gage height, 4.77 ft (1.454 m), from rating curve extended above 300 ft³/s (8.5 m³/s); maximum gage height, 5.49 ft (1.673 m) Apr. 18, 1962 (backwater from ice); minimum daily discharge, 2.2 ft³/s (0.062 m³/s) Aug. 30, 31, Sept. 2, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.7 m³/s) and maximum (*):

| Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) | Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| May 7 | 2000 | 343 | 9.71 | 4.01 | 1.222 | May 23 | 2330 | *347 | 9.83 | 4.07 | 1.241 |

Minimum daily discharge, 4.4 ft³/s (0.12 m³/s) Oct. 24, 25, Nov. 11, 27-30.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.0 | 4.7 | 4.5 | 4.6 | 5.0 | 6.3 | 5.7 | 77 | 188 | 31 | 7.8 | 6.5 |
| 2 | 4.7 | 4.8 | 4.6 | 4.5 | 5.1 | 6.1 | 5.9 | 83 | 182 | 58 | 7.4 | 6.2 |
| 3 | 4.7 | 4.9 | 4.8 | 4.5 | 5.2 | 6.3 | 5.8 | 96 | 190 | 51 | 7.0 | 5.5 |
| 4 | 4.7 | 5.0 | 5.1 | 4.7 | 5.1 | 6.1 | 6.3 | 111 | 199 | 32 | 7.0 | 5.5 |
| 5 | 4.7 | 4.7 | 4.9 | 4.9 | 5.0 | 6.3 | 7.0 | 154 | 199 | 22 | 6.5 | 5.5 |
| 6 | 4.7 | 5.0 | 4.7 | 4.7 | 5.3 | 6.2 | 8.3 | 230 | 195 | 18 | 6.5 | 5.5 |
| 7 | 4.7 | 4.8 | 4.6 | 4.6 | 5.0 | 6.0 | 8.2 | 258 | 174 | 16 | 6.2 | 5.5 |
| 8 | 5.0 | 4.7 | 4.8 | 4.6 | 4.8 | 6.0 | 8.4 | 264 | 156 | 23 | 6.0 | 6.2 |
| 9 | 5.0 | 4.6 | 4.8 | 4.8 | 4.7 | 5.8 | 8.9 | 244 | 142 | 18 | 6.5 | 12 |
| 10 | 5.0 | 4.6 | 4.8 | 5.1 | 4.7 | 5.9 | 9.4 | 248 | 130 | 15 | 6.2 | 8.6 |
| 11 | 5.0 | 4.4 | 4.6 | 4.9 | 4.6 | 6.0 | 10 | 262 | 119 | 15 | 6.5 | 9.4 |
| 12 | 4.7 | 4.5 | 4.5 | 5.0 | 4.7 | 5.7 | 9.0 | 254 | 106 | 16 | 5.2 | 8.6 |
| 13 | 4.7 | 4.6 | 4.5 | 6.0 | 5.0 | 5.7 | 10 | 209 | 96 | 15 | 5.5 | 7.8 |
| 14 | 4.7 | 4.7 | 4.5 | 7.2 | 5.2 | 5.8 | 12 | 188 | 89 | 21 | 6.0 | 6.8 |
| 15 | 4.7 | 4.8 | 4.6 | 7.0 | 5.3 | 6.4 | 16 | 173 | 82 | 15 | 13 | 6.2 |
| 16 | 4.7 | 5.4 | 4.9 | 6.9 | 5.2 | 6.3 | 20 | 160 | 77 | 13 | 15 | 6.0 |
| 17 | 4.7 | 6.2 | 4.7 | 6.7 | 5.1 | 6.0 | 24 | 173 | 73 | 12 | 11 | 6.0 |
| 18 | 4.7 | 6.1 | 4.7 | 6.3 | 5.5 | 6.0 | 28 | 140 | 67 | 11 | 9.0 | 6.0 |
| 19 | 4.7 | 5.0 | 4.6 | 6.4 | 5.9 | 6.1 | 36 | 149 | 63 | 10 | 7.0 | 5.8 |
| 20 | 4.7 | 4.8 | 4.9 | 6.0 | 6.1 | 6.2 | 42 | 171 | 62 | 9.8 | 6.5 | 7.8 |
| 21 | 4.7 | 4.7 | 4.8 | 5.9 | 6.0 | 6.4 | 46 | 207 | 57 | 9.4 | 6.2 | 9.0 |
| 22 | 4.7 | 4.6 | 4.6 | 5.7 | 5.9 | 6.9 | 50 | 250 | 52 | 9.0 | 6.2 | 7.4 |
| 23 | 4.5 | 4.5 | 4.6 | 5.8 | 5.8 | 6.7 | 54 | 295 | 46 | 9.0 | 6.2 | 7.0 |
| 24 | 4.4 | 4.5 | 4.6 | 6.3 | 5.7 | 6.8 | 56 | 292 | 40 | 9.4 | 6.8 | 6.8 |
| 25 | 4.4 | 4.6 | 4.7 | 6.2 | 5.6 | 6.9 | 58 | 242 | 36 | 14 | 7.8 | 6.8 |
| 26 | 4.6 | 4.5 | 4.6 | 6.1 | 5.6 | 6.7 | 60 | 220 | 33 | 12 | 7.8 | 6.8 |
| 27 | 4.8 | 4.4 | 4.6 | 5.9 | 5.9 | 6.4 | 62 | 203 | 31 | 9.4 | 6.8 | 6.8 |
| 28 | 4.8 | 4.5 | 4.5 | 5.7 | 6.4 | 6.0 | 64 | 205 | 29 | 8.6 | 6.5 | 6.8 |
| 29 | 4.7 | 4.4 | 4.5 | 5.4 | 6.3 | 5.8 | 68 | 209 | 27 | 8.2 | 6.2 | 6.8 |
| 30 | 4.6 | 4.4 | 4.5 | 5.2 | --- | 5.7 | 72 | 194 | 26 | 9.4 | 6.0 | 6.8 |
| 31 | 4.7 | --- | 4.6 | 5.0 | --- | 5.6 | --- | 199 | --- | 9.4 | 6.2 | --- |
| TOTAL | 146.4 | 143.4 | 144.7 | 172.6 | 155.7 | 191.1 | 870.9 | 6160 | 2966 | 529.6 | 224.5 | 208.4 |
| MEAN | 4.72 | 4.78 | 4.67 | 5.57 | 5.37 | 6.16 | 29.0 | 199 | 98.9 | 17.1 | 7.24 | 6.95 |
| MAX | 5.0 | 6.2 | 5.1 | 7.2 | 6.4 | 6.9 | 72 | 295 | 199 | 58 | 15 | 12 |
| MIN | 4.4 | 4.4 | 4.5 | 4.5 | 4.6 | 5.6 | 5.7 | 77 | 26 | 8.2 | 5.2 | 5.5 |
| AC-FT | 290 | 284 | 287 | 342 | 309 | 379 | 1730 | 12220 | 5880 | 1050 | 445 | 413 |

CAL YR 1979 TOTAL 16825.7 MEAN 46.1 MAX 474 MIN 4.4 AC-FT 33370
WTR YR 1980 TOTAL 11913.3 MEAN 32.6 MAX 295 MIN 4.4 AC-FT 23630

NOTE.--NO GAGE-HEIGHT RECORD NOV. 25 TO MAY 2.

## 09063000 EAGLE RIVER AT RED CLIFF, CO

LOCATION.--Lat 39°30'34", long 106°22'00", in NW¼SW¼ sec.20, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank at Red Cliff, 0.3 mi (0.5 km) upstream from Turkey Creek.

DRAINAGE AREA.--70.0 mi$^2$ (181.3 km$^2$).

PERIOD OF RECORD.--October 1910 to September 1925, May 1944 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area. WRD Colo. 1972: 1971.

GAGE.--Water-stage recorder. Datum of gage is 8,648.48 ft (2,636.057 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Jan. 8, 1911, to Sept. 30, 1925, nonrecording gage at bridge 0.2 mi (0.3 km) downstream at different datum. May 25, 1944, to Oct. 12, 1952, water-stage recorder at site 200 ft (61 m) upstream at datum 3.54 ft (1.079 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station by Columbine, Ewing, and Wurtz ditches (see elsewhere in this report). Transbasin diversion above station from Robinson Reservoir, capacity, 2,520 acre-ft (3.11 hm$^3$) to Tenmile Creek for mining development. Small diversions for irrigation of 400 acres (1.62 km$^2$) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--51 years (water years 1911-25, 1946-80), 48.5 ft$^3$/s (1.374 m$^3$/s), 35,140 acre-ft/yr (43.3 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,010 ft$^3$/s (28.6 m$^3$/s) June 5, 1912, gage height, 4.0 ft (1.22 m), site and datum then in use, from rating curve extended above 500 ft$^3$/s (14 m$^3$/s); maximum gage height recorded, 4.23 ft (1.289 m) Nov. 28, 1972 (backwater from ice); minimum daily discharge, 1.0 ft$^3$/s (0.028 m$^3$/s) Oct. 15, 1917.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft$^3$/s (7.9 m$^3$/s) and maximum (*):

| Date | Time | Discharge (ft$^3$/s) | Discharge (m$^3$/s) | Gage height (ft) | Gage height (m) |
|---|---|---|---|---|---|
| May 23 | 1800 | 290 | 8.21 | 3.56 | 1.085 |
| June 11 | 2000 | *358 | 10.1 | 3.93 | 1.198 |

Minimum daily discharge, 8.0 ft$^3$/s (0.23 m$^3$/s) Apr. 5, 7-9.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 10 | 11 | 10 | 10 | 10 | 8.5 | 21 | 163 | 51 | 23 | 13 |
| 2 | 12 | 10 | 12 | 10 | 10 | 9.5 | 8.5 | 21 | 174 | 49 | 23 | 13 |
| 3 | 13 | 10 | 11 | 11 | 10 | 9.0 | 8.5 | 21 | 191 | 47 | 23 | 12 |
| 4 | 12 | 10 | 11 | 11 | 10 | 9.1 | 8.5 | 29 | 226 | 42 | 23 | 12 |
| 5 | 13 | 10 | 11 | 11 | 10 | 8.9 | 8.0 | 46 | 244 | 40 | 21 | 12 |
| 6 | 13 | 11 | 11 | 11 | 11 | 9.2 | 8.4 | 51 | 246 | 39 | 21 | 11 |
| 7 | 13 | 11 | 11 | 11 | 11 | 9.5 | 8.0 | 66 | 253 | 37 | 20 | 12 |
| 8 | 13 | 12 | 11 | 11 | 10 | 9.5 | 8.0 | 65 | 262 | 37 | 19 | 13 |
| 9 | 13 | 12 | 11 | 11 | 9.5 | 9.6 | 8.0 | 59 | 275 | 38 | 19 | 19 |
| 10 | 13 | 12 | 11 | 10 | 10 | 9.5 | 8.9 | 60 | 299 | 37 | 18 | 17 |
| 11 | 13 | 13 | 11 | 10 | 10 | 10 | 8.8 | 73 | 327 | 39 | 17 | 18 |
| 12 | 13 | 14 | 11 | 10 | 10 | 10 | 9.0 | 86 | 309 | 41 | 17 | 15 |
| 13 | 13 | 14 | 11 | 11 | 10 | 9.5 | 9.0 | 66 | 238 | 41 | 16 | 15 |
| 14 | 13 | 14 | 11 | 11 | 10 | 9.5 | 9.0 | 61 | 221 | 41 | 17 | 14 |
| 15 | 14 | 14 | 10 | 11 | 9.5 | 10 | 10 | 54 | 197 | 39 | 20 | 13 |
| 16 | 14 | 14 | 10 | 11 | 9.5 | 10 | 10 | 53 | 206 | 39 | 20 | 13 |
| 17 | 15 | 13 | 10 | 11 | 10 | 9.5 | 11 | 54 | 166 | 40 | 18 | 13 |
| 18 | 14 | 13 | 10 | 10 | 10 | 9.5 | 12 | 56 | 148 | 38 | 17 | 12 |
| 19 | 14 | 13 | 10 | 10 | 10 | 9.0 | 14 | 74 | 135 | 36 | 16 | 12 |
| 20 | 15 | 13 | 10 | 10 | 10 | 9.0 | 15 | 102 | 126 | 34 | 15 | 14 |
| 21 | 14 | 12 | 10 | 10 | 10 | 9.5 | 17 | 156 | 103 | 33 | 15 | 13 |
| 22 | 13 | 12 | 10 | 10 | 10 | 9.0 | 20 | 210 | 90 | 31 | 14 | 13 |
| 23 | 11 | 13 | 10 | 9.5 | 10 | 9.0 | 20 | 224 | 82 | 30 | 14 | 13 |
| 24 | 11 | 13 | 10 | 10 | 10 | 9.0 | 16 | 215 | 77 | 30 | 16 | 13 |
| 25 | 12 | 13 | 10 | 10 | 10 | 9.0 | 13 | 158 | 70 | 33 | 20 | 13 |
| 26 | 12 | 12 | 10 | 11 | 10 | 8.5 | 14 | 137 | 66 | 31 | 19 | 13 |
| 27 | 12 | 11 | 10 | 11 | 10 | 8.5 | 16 | 132 | 61 | 28 | 16 | 13 |
| 28 | 11 | 10 | 10 | 10 | 10 | 8.5 | 19 | 140 | 57 | 26 | 14 | 13 |
| 29 | 12 | 11 | 10 | 11 | 10 | 8.8 | 22 | 136 | 53 | 26 | 14 | 14 |
| 30 | 11 | 11 | 10 | 10 | --- | 9.0 | 23 | 140 | 52 | 26 | 14 | 14 |
| 31 | 10 | --- | 10 | 10 | --- | 8.5 | --- | 151 | --- | 25 | 14 | --- |
| TOTAL | 394 | 361 | 325 | 324.5 | 290.5 | 287.1 | 371.1 | 2917 | 5115 | 1124 | 553 | 405 |
| MEAN | 12.7 | 12.0 | 10.5 | 10.5 | 10.0 | 9.26 | 12.4 | 94.1 | 171 | 36.3 | 17.8 | 13.5 |
| MAX | 15 | 14 | 12 | 11 | 11 | 10 | 23 | 224 | 327 | 51 | 23 | 19 |
| MIN | 10 | 10 | 10 | 9.5 | 9.5 | 8.5 | 8.0 | 21 | 52 | 25 | 14 | 11 |
| AC-FT | 781 | 716 | 645 | 644 | 576 | 569 | 736 | 5790 | 10150 | 2230 | 1100 | 803 |

CAL YR 1979 TOTAL 19480.0 MEAN 53.4 MAX 505 MIN 7.0 AC-FT 38640
WTR YR 1980 TOTAL 12467.2 MEAN 34.1 MAX 327 MIN 8.0 AC-FT 24730

NOTE.--NO GAGE-HEIGHT RECORD JAN. 21 TO FEB. 27.

## 09063200 WEARYMAN CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°31'14", long 106°19'06", in SW¼SE¼ sec.15, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.4 mi (0.6 km) upstream from mouth and 2.5 mi (4.0 km) east of Red Cliff.

DRAINAGE AREA.--8.78 mi² (22.74 km²).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,158 ft (2,791.4 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 8.13 ft³/s (0.230 m³/s), 5,890 acre-ft/yr (7.26 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 140 ft³/s (4.0 m³/s) June 18, 1965, gage height, 3.23 ft (0.985 m); minimum daily, 0.30 ft³/s (0.008 m³/s) Feb. 21, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 58 ft³/s (1.64 m³/s) at 1900 June 13, gage height, 3.04 ft (0.927 m) only peak above base of 70 ft³/s (2.0 m³/s); minimum daily, 0.98 ft³/s (0.028 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.7 | 2.2 | 2.0 | 1.2 | 1.1 | 1.0 | 1.1 | 2.0 | 20 | 29 | 7.6 | 3.2 |
| 2 | 2.7 | 2.2 | 2.0 | 1.2 | 1.2 | 1.0 | 1.0 | 2.1 | 21 | 28 | 7.2 | 3.1 |
| 3 | 2.7 | 2.2 | 1.9 | 1.2 | 1.2 | 1.0 | 1.1 | 2.3 | 22 | 27 | 6.8 | 3.1 |
| 4 | 2.7 | 2.2 | 1.9 | 1.2 | 1.2 | 1.0 | 1.1 | 2.4 | 25 | 25 | 6.6 | 3.1 |
| 5 | 2.7 | 2.2 | 1.8 | 1.2 | 1.2 | 1.0 | 1.1 | 2.7 | 30 | 24 | 6.4 | 2.9 |
| 6 | 2.7 | 2.2 | 1.8 | 1.2 | 1.1 | 1.0 | 1.1 | 3.3 | 32 | 23 | 5.7 | 2.9 |
| 7 | 2.7 | 2.3 | 1.7 | 1.2 | 1.1 | 1.0 | 1.1 | 3.7 | 35 | 22 | 5.7 | 2.9 |
| 8 | 2.7 | 2.3 | 1.7 | 1.2 | 1.1 | 1.0 | 1.1 | 4.0 | 40 | 22 | 5.4 | 3.3 |
| 9 | 2.7 | 2.5 | 1.6 | 1.1 | 1.1 | 1.0 | 1.1 | 3.7 | 43 | 21 | 5.4 | 3.5 |
| 10 | 2.7 | 2.5 | 1.5 | 1.1 | 1.1 | 1.1 | 1.1 | 3.7 | 43 | 19 | 5.0 | 3.5 |
| 11 | 2.7 | 2.5 | 1.4 | .98 | 1.1 | 1.1 | 1.1 | 4.0 | 47 | 18 | 4.8 | 3.5 |
| 12 | 2.7 | 2.5 | 1.4 | 1.0 | 1.1 | 1.1 | 1.2 | 4.0 | 51 | 18 | 4.8 | 3.3 |
| 13 | 2.7 | 2.5 | 1.4 | 1.1 | 1.1 | 1.1 | 1.2 | 3.7 | 53 | 17 | 4.8 | 3.3 |
| 14 | 2.6 | 2.4 | 1.4 | 1.1 | 1.1 | 1.1 | 1.2 | 3.5 | 54 | 16 | 4.8 | 3.1 |
| 15 | 2.6 | 2.2 | 1.4 | 1.2 | 1.1 | 1.1 | 1.2 | 3.5 | 53 | 18 | 5.7 | 3.1 |
| 16 | 2.7 | 2.2 | 1.3 | 1.2 | 1.1 | 1.1 | 1.2 | 3.5 | 50 | 18 | 5.0 | 3.1 |
| 17 | 2.6 | 2.2 | 1.3 | 1.2 | 1.1 | 1.1 | 1.2 | 3.7 | 48 | 17 | 5.0 | 2.9 |
| 18 | 2.7 | 2.2 | 1.3 | 1.2 | 1.1 | 1.1 | 1.5 | 3.7 | 47 | 17 | 4.8 | 2.9 |
| 19 | 2.7 | 2.2 | 1.3 | 1.2 | 1.1 | 1.1 | 1.6 | 4.0 | 47 | 16 | 4.5 | 2.9 |
| 20 | 2.7 | 2.2 | 1.3 | 1.2 | 1.1 | 1.1 | 1.7 | 4.8 | 46 | 15 | 4.4 | 3.1 |
| 21 | 2.9 | 2.1 | 1.3 | 1.2 | 1.1 | 1.1 | 1.7 | 6.4 | 44 | 15 | 4.0 | 2.9 |
| 22 | 4.5 | 2.0 | 1.3 | 1.2 | 1.1 | 1.1 | 1.9 | 10 | 43 | 14 | 4.0 | 2.9 |
| 23 | 6.8 | 2.0 | 1.2 | 1.2 | 1.1 | 1.1 | 1.9 | 15 | 42 | 13 | 4.0 | 2.9 |
| 24 | 2.9 | 2.0 | 1.2 | 1.2 | 1.1 | 1.1 | 1.7 | 20 | 40 | 13 | 4.0 | 2.9 |
| 25 | 2.9 | 2.0 | 1.2 | 1.2 | 1.0 | 1.1 | 1.5 | 18 | 39 | 13 | 4.2 | 2.9 |
| 26 | 2.7 | 2.0 | 1.2 | 1.2 | 1.0 | 1.1 | 1.6 | 16 | 38 | 12 | 4.2 | 2.7 |
| 27 | 2.7 | 2.0 | 1.2 | 1.2 | 1.0 | 1.1 | 1.7 | 15 | 38 | 12 | 3.7 | 2.7 |
| 28 | 3.1 | 2.0 | 1.2 | 1.2 | 1.0 | 1.1 | 2.0 | 17 | 35 | 10 | 3.7 | 2.7 |
| 29 | 2.4 | 2.0 | 1.2 | 1.2 | 1.0 | 1.1 | 2.1 | 18 | 33 | 7.6 | 3.5 | 2.7 |
| 30 | 2.0 | 2.0 | 1.2 | 1.1 | --- | 1.1 | 2.1 | 18 | 31 | 8.0 | 3.5 | 2.7 |
| 31 | 2.0 | --- | 1.2 | 1.1 | --- | 1.1 | --- | 19 | --- | 8.0 | 3.3 | --- |
| TOTAL | 88.6 | 66.0 | 44.8 | 36.18 | 31.8 | 33.2 | 42.2 | 240.7 | 1190 | 535.6 | 152.5 | 90.7 |
| MEAN | 2.86 | 2.20 | 1.45 | 1.17 | 1.10 | 1.07 | 1.41 | 7.76 | 39.7 | 17.3 | 4.92 | 3.02 |
| MAX | 6.8 | 2.5 | 2.0 | 1.2 | 1.2 | 1.1 | 2.1 | 20 | 54 | 29 | 7.6 | 3.5 |
| MIN | 2.0 | 2.0 | 1.2 | .98 | 1.0 | 1.0 | 1.0 | 2.0 | 20 | 7.6 | 3.3 | 2.7 |
| AC-FT | 176 | 131 | 89 | 72 | 63 | 66 | 84 | 477 | 2360 | 1060 | 302 | 180 |

CAL YR 1979 TOTAL 3489.98 MEAN 9.56 MAX 88 MIN .92 AC-FT 6920
WTR YR 1980 TOTAL 2552.28 MEAN 6.97 MAX 54 MIN .98 AC-FT 5060

NOTE.--NO GAGE-HEIGHT RECORD NOV. 4 TO APR. 15.

## 09063400 TURKEY CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°31'22", long 106°20'08", in NW¼SW¼ sec.16, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 400 ft (120 m) downstream from Lime Creek, 1.9 mi (3.1 km) northeast of Red Cliff, and 2.0 mi (3.2 km) upstream from mouth.

DRAINAGE AREA.--23.9 mi² (61.9 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,885 ft (2,708 m), from topographic map.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 21.4 ft³/s (0.606 m³/s), 15,500 acre-ft/yr (19.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 515 ft³/s (14.6 m³/s) June 17, 1965, gage height, 3.03 ft (0.924 m), from rating curve extended above 230 ft³/s (6.5 m³/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 232 ft³/s (6.57 m³/s) at 1900 June 12, gage height, 2.37 ft (0.722 m), only peak above base of 160 ft³/s (4.5 m³/s); minimum daily, 2.4 ft³/s (0.068 m³/s) Apr. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.0 | 4.8 | 2.8 | 2.6 | 3.0 | 3.0 | 2.8 | 8.0 | 53 | 77 | 13 | 7.8 |
| 2 | 6.0 | 3.4 | 3.0 | 2.6 | 3.0 | 3.2 | 2.8 | 7.7 | 56 | 64 | 12 | 7.6 |
| 3 | 5.9 | 3.4 | 3.2 | 2.6 | 3.0 | 3.2 | 2.8 | 8.4 | 60 | 58 | 12 | 7.4 |
| 4 | 5.8 | 3.3 | 3.0 | 2.6 | 3.0 | 3.2 | 2.8 | 9.2 | 70 | 54 | 11 | 7.3 |
| 5 | 5.8 | 3.2 | 3.0 | 2.8 | 3.0 | 3.0 | 2.8 | 11 | 82 | 50 | 11 | 7.2 |
| 6 | 5.8 | 3.2 | 3.0 | 2.8 | 3.0 | 3.2 | 2.8 | 13 | 88 | 46 | 11 | 6.8 |
| 7 | 5.8 | 3.4 | 3.0 | 2.8 | 3.0 | 3.2 | 2.6 | 14 | 83 | 43 | 11 | 6.7 |
| 8 | 5.7 | 3.4 | 2.8 | 2.8 | 3.0 | 3.2 | 2.6 | 15 | 97 | 40 | 11 | 8.0 |
| 9 | 5.7 | 3.4 | 2.8 | 2.8 | 3.0 | 3.2 | 2.6 | 14 | 132 | 38 | 11 | 7.8 |
| 10 | 5.7 | 3.4 | 2.8 | 2.8 | 3.0 | 3.2 | 2.6 | 15 | 119 | 33 | 10 | 7.9 |
| 11 | 5.6 | 3.4 | 2.8 | 2.8 | 3.0 | 3.2 | 2.6 | 15 | 122 | 33 | 9.9 | 7.9 |
| 12 | 5.5 | 3.4 | 2.8 | 2.8 | 3.0 | 3.0 | 2.6 | 16 | 150 | 33 | 9.6 | 7.3 |
| 13 | 5.5 | 3.0 | 2.8 | 2.8 | 3.0 | 3.0 | 2.6 | 15 | 150 | 31 | 9.6 | 7.0 |
| 14 | 5.7 | 3.0 | 2.8 | 2.8 | 3.0 | 3.0 | 2.4 | 14 | 128 | 29 | 9.7 | 6.7 |
| 15 | 5.8 | 3.0 | 2.8 | 2.8 | 3.0 | 3.0 | 2.8 | 14 | 102 | 26 | 11 | 6.6 |
| 16 | 5.7 | 3.0 | 2.6 | 2.8 | 3.0 | 3.2 | 3.0 | 14 | 106 | 25 | 10 | 6.7 |
| 17 | 5.6 | 3.2 | 2.6 | 2.8 | 3.0 | 3.2 | 3.2 | 15 | 105 | 23 | 9.6 | 6.4 |
| 18 | 5.6 | 3.4 | 2.6 | 2.8 | 3.0 | 3.2 | 3.4 | 14 | 102 | 22 | 9.1 | 6.3 |
| 19 | 5.5 | 3.4 | 2.6 | 2.8 | 2.8 | 3.2 | 3.4 | 16 | 102 | 21 | 8.8 | 6.3 |
| 20 | 5.6 | 3.2 | 2.6 | 2.8 | 2.8 | 3.2 | 3.8 | 20 | 104 | 19 | 8.6 | 6.5 |
| 21 | 5.9 | 3.2 | 2.8 | 3.0 | 3.0 | 3.2 | 4.0 | 25 | 103 | 18 | 8.9 | 6.3 |
| 22 | 5.4 | 3.0 | 2.8 | 3.0 | 3.0 | 3.2 | 4.4 | 40 | 94 | 18 | 8.6 | 5.9 |
| 23 | 5.6 | 3.0 | 2.8 | 2.8 | 3.0 | 3.2 | 4.8 | 62 | 87 | 17 | 8.6 | 5.8 |
| 24 | 5.7 | 3.2 | 2.8 | 2.8 | 3.0 | 3.2 | 4.8 | 67 | 81 | 17 | 9.3 | 5.8 |
| 25 | 5.6 | 3.2 | 2.8 | 2.8 | 3.0 | 3.0 | 5.1 | 60 | 82 | 16 | 9.9 | 5.8 |
| 26 | 5.7 | 3.2 | 2.8 | 3.0 | 3.0 | 3.0 | 5.3 | 53 | 82 | 16 | 9.2 | 5.7 |
| 27 | 5.5 | 3.0 | 2.8 | 3.0 | 3.0 | 3.0 | 6.1 | 49 | 85 | 15 | 8.5 | 5.7 |
| 28 | 5.3 | 2.8 | 2.8 | 3.0 | 3.0 | 3.0 | 7.0 | 52 | 88 | 14 | 8.4 | 5.6 |
| 29 | 5.5 | 2.8 | 2.8 | 3.0 | 3.0 | 2.8 | 7.7 | 53 | 93 | 14 | 8.0 | 5.5 |
| 30 | 5.2 | 2.8 | 2.6 | 3.0 | --- | 2.8 | 8.2 | 51 | 86 | 15 | 8.1 | 5.5 |
| 31 | 5.0 | --- | 2.6 | 3.0 | --- | 2.8 | --- | 52 | --- | 13 | 7.9 | --- |
| TOTAL | 174.7 | 97.1 | 86.8 | 87.6 | 86.6 | 96.0 | 114.4 | 832.3 | 2892 | 938 | 304.3 | 199.8 |
| MEAN | 5.64 | 3.24 | 2.80 | 2.83 | 2.99 | 3.10 | 3.81 | 26.8 | 96.4 | 30.3 | 9.82 | 6.66 |
| MAX | 6.0 | 4.8 | 3.2 | 3.0 | 3.0 | 3.2 | 8.2 | 67 | 150 | 77 | 13 | 8.0 |
| MIN | 5.0 | 2.8 | 2.6 | 2.6 | 2.8 | 2.6 | 2.4 | 7.7 | 53 | 13 | 7.9 | 5.5 |
| AC-FT | 347 | 193 | 172 | 174 | 172 | 190 | 227 | 1650 | 5740 | 1860 | 604 | 396 |

CAL YR 1979 TOTAL 9082.8 MEAN 24.9 MAX 273 MIN 2.4 AC-FT 18020
WTR YR 1980 TOTAL 5909.6 MEAN 16.1 MAX 150 MIN 2.4 AC-FT 11720

NOTE.--NO GAGE-HEIGHT RECORD NOV. 17 TO APR. 16.

## 09063900 MISSOURI CREEK NEAR GOLD PARK, CO

LOCATION.--Lat 39°23'25", long 106°28'10", Eagle County, Hydrologic Unit 14010003, on left bank 50 ft (15 m) downstream from road culvert, 0.6 mi (1.0 km) upstream from Fancy Creek, 2.2 mi (3.5 km) southwest of Gold Park, and 10 mi (16 km) southwest of Red Cliff.

DRAINAGE AREA.--6.42 mi² (16.63 km²).

PERIOD OF RECORD.--August 1972 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,980 ft (3,042 m), from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record or ice effect, which are poor. Transmountain diversion above station to Arkansas River basin through Homestake tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years, 6.67 ft³/s (0.189 m³/s) 4,830 acre-ft/yr (5.96 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 300 ft³/s (8.50 m³/s) July 4, 1975, gage height, 3.19 ft (0.972 m), from rating curve extended above 35 ft³/s (1.0 m³/s); minimum daily, 0.24 ft³/s (0.007 m³/s) Feb. 12, 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 112 ft³/s (3.17 m³/s) at 0700 June 10, gage height, 2.95 ft (0.899 m); minimum daily, 0.38 ft³/s (0.011 m³/s) Mar. 17.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.3 | .70 | .55 | .44 | .44 | .44 | .40 | 15 | 14 | 26 | 12 | 2.0 |
| 2 | 1.1 | .70 | .60 | .44 | .42 | .44 | .40 | 10 | 22 | 33 | 11 | 1.8 |
| 3 | .99 | .75 | .60 | .44 | .44 | .44 | .40 | 11 | 33 | 23 | 10 | 1.7 |
| 4 | .95 | .75 | .60 | .44 | .44 | .44 | .42 | 14 | 38 | 11 | 10 | 1.6 |
| 5 | .90 | .75 | .60 | .44 | .42 | .44 | .44 | 18 | 27 | 6.8 | 8.6 | 1.6 |
| 6 | .85 | .80 | .55 | .44 | .44 | .44 | .42 | 24 | 27 | 7.7 | 8.1 | 1.6 |
| 7 | .80 | .80 | .55 | .44 | .44 | .42 | .44 | 26 | 44 | 9.9 | 7.7 | 1.6 |
| 8 | .75 | .80 | .55 | .44 | .44 | .42 | .44 | 26 | 58 | 9.6 | 7.5 | 2.2 |
| 9 | .74 | .80 | .55 | .44 | .42 | .42 | .48 | 22 | 71 | 8.5 | 7.3 | 3.3 |
| 10 | .69 | .75 | .55 | .44 | .42 | .42 | .50 | 22 | 73 | 8.3 | 6.7 | 4.8 |
| 11 | .65 | .75 | .55 | .44 | .42 | .42 | .55 | 24 | 75 | 9.2 | 5.9 | 8.2 |
| 12 | .62 | .75 | .55 | .44 | .42 | .42 | .55 | 19 | 65 | 9.6 | 5.1 | 5.0 |
| 13 | .62 | .70 | .55 | .44 | .42 | .42 | .55 | 12 | 57 | 6.4 | 4.7 | 4.0 |
| 14 | .62 | .70 | .55 | .44 | .42 | .42 | .60 | 12 | 50 | 10 | 4.7 | 3.2 |
| 15 | .63 | .70 | .50 | .44 | .42 | .42 | .75 | 11 | 37 | 18 | 8.7 | 2.8 |
| 16 | .64 | .70 | .50 | .44 | .42 | .40 | .90 | 12 | 31 | 14 | 7.8 | 2.8 |
| 17 | .60 | .70 | .50 | .44 | .44 | .38 | 1.1 | 13 | 34 | 14 | 5.5 | 2.4 |
| 18 | .71 | .70 | .50 | .44 | .44 | .40 | 1.2 | 16 | 43 | 13 | 4.4 | 2.1 |
| 19 | .76 | .65 | .50 | .44 | .44 | .42 | 1.7 | 18 | 48 | 12 | 3.9 | 1.8 |
| 20 | .73 | .65 | .50 | .44 | .44 | .46 | 2.1 | 22 | 39 | 11 | 3.4 | 3.2 |
| 21 | 1.1 | .65 | .50 | .46 | .44 | .50 | 2.4 | 26 | 34 | 9.4 | 2.9 | 2.6 |
| 22 | 1.2 | .60 | .50 | .46 | .42 | .50 | 2.7 | 32 | 36 | 9.3 | 2.7 | 2.2 |
| 23 | 1.3 | .65 | .50 | .46 | .42 | .48 | 3.0 | 46 | 42 | 9.2 | 2.7 | 1.9 |
| 24 | 1.1 | .65 | .50 | .44 | .42 | .48 | 3.7 | 40 | 42 | 8.1 | 3.5 | 1.7 |
| 25 | .92 | .70 | .50 | .42 | .42 | .46 | 4.1 | 32 | 44 | 10 | 5.7 | 1.6 |
| 26 | .87 | .65 | .50 | .40 | .42 | .44 | 4.0 | 27 | 41 | 15 | 5.6 | 1.5 |
| 27 | .86 | .65 | .50 | .44 | .42 | .42 | 3.9 | 28 | 41 | 14 | 4.0 | 1.4 |
| 28 | .84 | .60 | .50 | .46 | .44 | .40 | 4.4 | 16 | 22 | 13 | 3.2 | 1.3 |
| 29 | .74 | .55 | .46 | .46 | .44 | .40 | 6.5 | 12 | 16 | 12 | 2.8 | 1.3 |
| 30 | .75 | .50 | .44 | .46 | --- | .40 | 8.5 | 13 | 25 | 14 | 2.6 | 1.2 |
| 31 | .75 | --- | .44 | .46 | --- | .40 | --- | 12 | --- | 13 | 2.3 | --- |
| TOTAL | 26.08 | 20.80 | 16.24 | 13.72 | 12.44 | 13.36 | 57.54 | 630 | 1229 | 388.1 | 181.0 | 74.4 |
| MEAN | .84 | .69 | .52 | .44 | .43 | .43 | 1.92 | 20.3 | 41.0 | 12.5 | 5.84 | 2.48 |
| MAX | 1.3 | .80 | .60 | .46 | .44 | .50 | 8.5 | 46 | 75 | 33 | 12 | 8.2 |
| MIN | .60 | .50 | .44 | .40 | .42 | .38 | .40 | 10 | 14 | 6.4 | 2.3 | 1.2 |
| AC-FT | 52 | 41 | 32 | 27 | 25 | 26 | 114 | 1250 | 2440 | 770 | 359 | 148 |

CAL YR 1979 TOTAL 1925.01 MEAN 5.27 MAX 65 MIN .31 AC-FT 3820
WTR YR 1980 TOTAL 2662.68 MEAN 7.28 MAX 75 MIN .38 AC-FT 5280

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 TO APR. 15.

## 09064000 HOMESTAKE CREEK AT GOLD PARK, CO

LOCATION.--Lat 39°24'20", long 106°25'58", Eagle County, Hydrologic Unit 14010003, on left bank at Gold Park, 400 ft (120 m) downstream from ford, 0.5 mi (0.8 km) downstream from French Creek, and 8 mi (13 km) southwest of Red Cliff.

DRAINAGE AREA.--36.1 mi$^2$ (93.5 km$^2$).

PERIOD OF RECORD.--October 1947 to September 1954, August 1972 to current year.

REVISED RECORDS.--WRD Colo. 1973: Drainage area at former site.

GAGE.--Water-stage recorder. Altitude of gage is 9,200 ft (2,804 m), from topographic map. Prior to Aug. 1, 1972, water-stage recorder at site 1,500 ft (460 m) upstream at datum 9,245 ft (2,817.9 m), National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. Flow regulated by Homestake Lake, capacity, 44,360 acre-ft (54.7 hm$^3$) since June 7, 1966. Transmountain diversion above station to Arkansas River basin through Homestake tunnel (see elsewhere in this report) since June 6, 1967. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years (water years 1948-54), 63.4 ft$^3$/s (1.795 m$^3$/s), 45,930 acre-ft/yr (56.6 hm$^3$/yr), prior to diversion through Homestake tunnel; 8 years (water years 1973-80), 22.6 ft$^3$/s (0.640 m$^3$/s), 16,370 acre-ft/yr (20.2 hm$^3$/yr), subsequent to diversion through Homestake tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft$^3$/s (30.6 m$^3$/s) June 13, 1953, gage height, 6.84 ft (2.085 m), site and datum then in use, from rating curve extended above 700 ft$^3$/s (20 m$^3$/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 362 ft$^3$/s (10.3 m/s) at 2200 June 10, gage height, 5.33 ft (1.625 m), from rating curve extended above 110 ft$^3$/s (3.1 m$^3$/s); minimum daily, 4.0 ft$^3$/s (0.11 m$^3$/s) Apr. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11 | 7.0 | 5.5 | 4.4 | 4.4 | 4.4 | 4.4 | 48 | 62 | 53 | 24 | 9.9 |
| 2 | 10 | 7.5 | 6.0 | 4.4 | 4.6 | 4.4 | 4.2 | 40 | 57 | 58 | 30 | 9.2 |
| 3 | 9.4 | 8.0 | 6.0 | 4.4 | 4.6 | 4.6 | 4.1 | 34 | 73 | 49 | 28 | 8.9 |
| 4 | 9.3 | 8.0 | 6.0 | 4.4 | 4.4 | 4.7 | 4.1 | 36 | 102 | 32 | 26 | 8.7 |
| 5 | 9.3 | 7.8 | 6.0 | 4.6 | 4.4 | 4.7 | 4.1 | 46 | 126 | 23 | 22 | 8.6 |
| 6 | 9.2 | 8.0 | 6.0 | 4.6 | 4.4 | 4.6 | 4.0 | 65 | 124 | 20 | 20 | 8.6 |
| 7 | 9.2 | 7.6 | 5.5 | 4.6 | 4.4 | 4.6 | 4.7 | 75 | 103 | 20 | 21 | 8.5 |
| 8 | 9.2 | 7.5 | 5.5 | 4.6 | 4.4 | 4.6 | 4.4 | 80 | 120 | 20 | 19 | 12 |
| 9 | 9.0 | 7.3 | 5.5 | 4.6 | 4.2 | 4.6 | 4.4 | 80 | 176 | 19 | 17 | 17 |
| 10 | 8.6 | 7.5 | 5.5 | 4.6 | 4.4 | 4.4 | 4.1 | 70 | 200 | 18 | 17 | 20 |
| 11 | 7.1 | 7.5 | 5.5 | 4.4 | 4.4 | 4.6 | 4.1 | 70 | 217 | 20 | 15 | 31 |
| 12 | 7.1 | 7.5 | 5.5 | 4.4 | 4.4 | 4.7 | 4.8 | 75 | 186 | 23 | 14 | 19 |
| 13 | 7.1 | 7.5 | 5.5 | 4.4 | 4.4 | 4.8 | 4.4 | 55 | 152 | 20 | 14 | 17 |
| 14 | 7.2 | 7.0 | 5.5 | 4.4 | 4.4 | 4.6 | 4.4 | 40 | 132 | 22 | 14 | 14 |
| 15 | 7.1 | 7.0 | 5.0 | 4.4 | 4.4 | 4.4 | 4.4 | 38 | 102 | 33 | 27 | 13 |
| 16 | 7.1 | 7.0 | 5.0 | 4.6 | 4.4 | 4.4 | 4.5 | 38 | 84 | 28 | 25 | 13 |
| 17 | 7.1 | 7.0 | 5.0 | 4.6 | 4.4 | 4.7 | 5.3 | 50 | 85 | 26 | 18 | 12 |
| 18 | 7.5 | 7.0 | 5.0 | 4.6 | 4.4 | 4.8 | 7.5 | 75 | 107 | 25 | 15 | 11 |
| 19 | 7.7 | 6.5 | 5.0 | 4.6 | 4.4 | 4.6 | 7.3 | 60 | 117 | 23 | 13 | 10 |
| 20 | 7.8 | 6.5 | 5.0 | 4.6 | 4.4 | 4.4 | 21 | 70 | 96 | 23 | 13 | 13 |
| 21 | 8.6 | 6.5 | 4.8 | 4.6 | 4.4 | 4.3 | 24 | 90 | 82 | 20 | 12 | 12 |
| 22 | 10 | 6.5 | 4.8 | 4.6 | 4.4 | 4.2 | 26 | 130 | 85 | 20 | 11 | 10 |
| 23 | 11 | 6.5 | 4.8 | 4.4 | 4.4 | 4.1 | 26 | 173 | 92 | 20 | 11 | 9.5 |
| 24 | 8.2 | 6.5 | 4.8 | 4.4 | 4.4 | 4.3 | 22 | 139 | 91 | 19 | 13 | 9.1 |
| 25 | 8.1 | 6.5 | 4.8 | 4.2 | 4.4 | 4.1 | 24 | 92 | 92 | 21 | 20 | 8.8 |
| 26 | 8.0 | 6.5 | 4.8 | 4.6 | 4.4 | 4.1 | 26 | 69 | 90 | 27 | 19 | 8.6 |
| 27 | 7.9 | 6.0 | 4.8 | 4.6 | 4.6 | 4.3 | 28 | 71 | 83 | 25 | 15 | 8.5 |
| 28 | 7.8 | 6.0 | 4.8 | 4.6 | 4.6 | 4.1 | 34 | 86 | 52 | 24 | 13 | 8.3 |
| 29 | 7.4 | 5.5 | 4.8 | 4.4 | 4.6 | 4.1 | 40 | 82 | 36 | 22 | 12 | 8.2 |
| 30 | 8.1 | 5.5 | 4.8 | 4.4 | --- | 4.2 | 44 | 49 | 51 | 25 | 11 | 8.0 |
| 31 | 7.5 | --- | 4.8 | 4.4 | --- | 4.1 | --- | 62 | --- | 24 | 11 | --- |
| TOTAL | 259.6 | 208.7 | 162.3 | 139.4 | 128.4 | 137.5 | 404.2 | 2188 | 3175 | 802 | 540 | 355.4 |
| MEAN | 8.37 | 6.96 | 5.24 | 4.50 | 4.43 | 4.44 | 13.5 | 70.6 | 106 | 25.9 | 17.4 | 11.8 |
| MAX | 11 | 8.0 | 6.0 | 4.6 | 4.6 | 4.8 | 44 | 173 | 217 | 58 | 30 | 31 |
| MIN | 7.1 | 5.5 | 4.8 | 4.2 | 4.2 | 4.1 | 4.0 | 34 | 36 | 18 | 11 | 8.0 |
| AC-FT | 515 | 414 | 322 | 276 | 255 | 273 | 802 | 4340 | 6300 | 1590 | 1070 | 705 |

CAL YR 1979 TOTAL 9334.2 MEAN 25.6 MAX 287 MIN 4.8 AC-FT 18510
WTR YR 1980 TOTAL 8500.5 MEAN 23.2 MAX 217 MIN 4.0 AC-FT 16860

NOTE.--NO GAGE-HEIGHT RECORD APR. 21 TO MAY 21.

## 09064500 HOMESTAKE CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°28'24", long 106°22'02", in NE¼NE¼ sec.6, T.7 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank at downstream side of Forest Service road bridge, 2.4 mi (3.9 km) south of Red Cliff, and 3.0 mi (4.8 km) upstream from mouth.

DRAINAGE AREA.--58.3 $mi^2$ (151.0 $km^2$).

PERIOD OF RECORD.--October 1910 to September 1918, May 1944 to current year. Published as "at Red Cliff" October 1910 to September 1916.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,783 ft (2,677.1 m) National Geodetic Vertical Datum of 1929 (river-profile survey). See WSP 1713 or 1733 for history of changes prior to May 8, 1961.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Homestake Lake (capacity, 44,360 acre-ft or 54.7 $hm^3$) since June 7, 1966. Transmountain diversions above station through Homestake tunnel (see elsewhere in this report) since June 6, 1967. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1911-18, 1945-66), 86.6 $ft^3/s$ (2.453 $m^3/s$), 62,740 acre-ft/yr (77.4 $hm^3/yr$), prior to diversion through Homestake tunnel; 14 years (water years 1967-80), 37.4 $ft^3/s$ (1.059 $m^3/s$), 27,100 acre-ft/yr (33.4 $hm^3/yr$), subsequent to diversion through Homestake tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,300 $ft^3/s$ (36.8 $m^3/s$) June 24, 1918, gage height, 6.2 ft (1.18 m), site and datum then in use; minimum observed, 0.60 $ft^3/s$ (0.017 $m^3/s$) Jan. 25, 1915 (discharge measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown, gage height, unknown; minimum daily, 5.0 $ft^3/s$ (0.14 $m^3/s$) Jan. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13 | 8.0 | 6.5 | 5.5 | 5.5 | 6.0 | 6.0 | 67 | 184 | 55 | 27 | 13 |
| 2 | 12 | 8.0 | 7.0 | 5.5 | 5.5 | 6.0 | 6.0 | 58 | 150 | 60 | 30 | 12 |
| 3 | 12 | 8.5 | 7.0 | 5.5 | 6.0 | 6.0 | 6.0 | 66 | 221 | 50 | 30 | 11 |
| 4 | 11 | 8.5 | 7.0 | 5.5 | 6.0 | 6.0 | 6.0 | 82 | 263 | 36 | 29 | 11 |
| 5 | 11 | 8.5 | 6.5 | 5.5 | 5.5 | 6.0 | 6.5 | 114 | 280 | 24 | 25 | 11 |
| 6 | 10 | 9.0 | 6.5 | 5.5 | 6.0 | 6.0 | 6.5 | 133 | 260 | 20 | 24 | 11 |
| 7 | 10 | 9.0 | 6.5 | 5.5 | 6.0 | 6.0 | 6.5 | 146 | 210 | 20 | 23 | 11 |
| 8 | 10 | 9.0 | 6.5 | 5.5 | 6.0 | 6.0 | 6.5 | 145 | 250 | 20 | 22 | 13 |
| 9 | 10 | 9.0 | 6.0 | 5.5 | 5.5 | 6.0 | 7.5 | 123 | 300 | 20 | 20 | 21 |
| 10 | 10 | 8.5 | 6.0 | 5.5 | 5.5 | 6.0 | 8.0 | 126 | 350 | 19 | 19 | 20 |
| 11 | 8.7 | 8.5 | 6.5 | 5.5 | 5.5 | 6.0 | 8.0 | 136 | 390 | 20 | 19 | 32 |
| 12 | 8.2 | 8.5 | 6.5 | 5.5 | 5.5 | 6.0 | 8.0 | 87 | 300 | 24 | 18 | 23 |
| 13 | 8.2 | 8.0 | 6.5 | 5.5 | 5.5 | 6.0 | 8.0 | 68 | 216 | 22 | 17 | 20 |
| 14 | 8.2 | 8.0 | 6.5 | 5.5 | 5.5 | 6.0 | 10 | 66 | 159 | 30 | 18 | 18 |
| 15 | 8.2 | 8.0 | 6.5 | 5.5 | 5.5 | 6.0 | 13 | 64 | 131 | 42 | 25 | 15 |
| 16 | 8.2 | 8.0 | 6.0 | 5.5 | 6.0 | 5.5 | 15 | 81 | 139 | 40 | 28 | 15 |
| 17 | 8.2 | 8.0 | 6.0 | 5.5 | 6.0 | 5.5 | 20 | 129 | 130 | 40 | 22 | 14 |
| 18 | 8.5 | 8.0 | 6.0 | 5.5 | 6.0 | 6.0 | 24 | 150 | 117 | 37 | 19 | 12 |
| 19 | 8.8 | 7.5 | 6.0 | 5.5 | 6.0 | 6.5 | 30 | 180 | 121 | 36 | 17 | 11 |
| 20 | 8.9 | 7.5 | 6.0 | 5.5 | 6.0 | 7.0 | 38 | 200 | 135 | 32 | 16 | 14 |
| 21 | 11 | 7.5 | 6.0 | 6.0 | 6.0 | 7.5 | 48 | 230 | 103 | 29 | 14 | 14 |
| 22 | 10 | 7.0 | 6.0 | 6.0 | 6.0 | 7.0 | 60 | 290 | 93 | 44 | 13 | 12 |
| 23 | 11 | 7.5 | 6.0 | 6.0 | 5.5 | 7.0 | 55 | 287 | 66 | 40 | 13 | 12 |
| 24 | 11 | 8.0 | 6.0 | 6.0 | 5.5 | 7.0 | 50 | 202 | 89 | 32 | 15 | 11 |
| 25 | 9.9 | 8.0 | 6.0 | 5.0 | 5.5 | 7.0 | 50 | 131 | 51 | 29 | 24 | 11 |
| 26 | 9.9 | 7.5 | 6.0 | 5.5 | 5.5 | 6.5 | 48 | 131 | 44 | 28 | 23 | 10 |
| 27 | 9.4 | 7.0 | 6.0 | 6.0 | 6.0 | 6.5 | 62 | 127 | 41 | 28 | 19 | 10 |
| 28 | 9.0 | 7.0 | 6.0 | 6.0 | 6.0 | 6.0 | 70 | 118 | 38 | 26 | 17 | 10 |
| 29 | 9.1 | 6.5 | 5.5 | 6.0 | 6.0 | 6.0 | 80 | 111 | 38 | 24 | 15 | 10 |
| 30 | 8.6 | 6.0 | 5.5 | 6.0 | --- | 6.0 | 86 | 129 | 48 | 28 | 14 | 10 |
| 31 | 8.5 | --- | 5.5 | 6.0 | --- | 6.0 | --- | 160 | --- | 28 | 14 | --- |
| TOTAL | 300.5 | 238.0 | 192.5 | 174.5 | 167.0 | 193.0 | 848.5 | 4137 | 4917 | 983 | 629 | 418 |
| MEAN | 9.69 | 7.93 | 6.21 | 5.63 | 5.76 | 6.23 | 28.3 | 133 | 164 | 31.7 | 20.3 | 13.9 |
| MAX | 13 | 9.0 | 7.0 | 6.0 | 6.0 | 7.5 | 86 | 290 | 390 | 60 | 30 | 32 |
| MIN | 8.2 | 6.0 | 5.5 | 5.0 | 5.5 | 5.5 | 6.0 | 58 | 38 | 19 | 13 | 10 |
| AC-FT | 596 | 472 | 382 | 346 | 331 | 383 | 1680 | 8210 | 9750 | 1950 | 1250 | 829 |

CAL YR 1979 TOTAL 15799.9 MEAN 43.3 MAX 346 MIN 5.5 AC-FT 31340
WTR YR 1980 TOTAL 13198.0 MEAN 36.1 MAX 390 MIN 5.0 AC-FT 26180

NOTE.--NO GAGE-HEIGHT RECORD NOV. 14 TO APR. 16.

## 09065100 CROSS CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°34'05", long 106°24'45", in SW¼ sec.36, T.5 S., R.81 W., Eagle County, Hydrologic Unit 14010003, on right bank 0.4 mi (0.6 km) upstream from mouth and 1.5 mi (2.4 km) southeast of Minturn.

DRAINAGE AREA.--33.5 mi² (86.8 km²).

PERIOD OF RECORD.--May 1956 to September 1963, October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,990 ft (2,435 m), from topographic map. Prior to July 18, 1956, nonrecording gage at site 0.3 mi (0.5 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Bolts ditch exports water from above station to tailings ponds and recreation lake along Eagle River. Diversion (0.2 mi (0.3 km) above station for water supply of school and for municipal supply of Minturn. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--20 years, 50.8 ft³/s (1.439 m³/s), 36,800 acre-ft/yr (45.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 754 ft³/s (21.4 m³/s) June 30, 1957, gage height, 5.45 ft (1.661 m); maximum gage height, 5.54 ft (1.689 m) July 18, 1957; minimum daily discharge, 0.1 ft³/s (0.003 m³/s) Dec. 27-31, 1962, Jan. 6-8, 11-15, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 712 ft³/s (20.2 m³/s) at 0600 June 12, gage height, 4.97 ft (1.515 m), only peak above base of 400 ft³/s (11 m³/s); minimum daily, 2.5 ft³/s (0.071 m³/s) Apr. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.4 | 4.8 | 3.8 | 2.8 | 3.0 | 3.0 | 2.6 | 40 | 182 | 292 | 36 | 12 |
| 2 | 5.2 | 4.4 | 3.8 | 2.8 | 3.0 | 3.0 | 2.6 | 34 | 188 | 300 | 33 | 10 |
| 3 | 5.0 | 4.4 | 3.6 | 2.8 | 3.0 | 3.0 | 2.5 | 34 | 227 | 310 | 33 | 9.4 |
| 4 | 4.7 | 4.6 | 3.6 | 2.8 | 3.0 | 3.0 | 2.6 | 38 | 269 | 239 | 30 | 8.7 |
| 5 | 4.5 | 4.6 | 3.6 | 2.8 | 2.8 | 2.8 | 2.6 | 50 | 350 | 182 | 27 | 8.4 |
| 6 | 4.5 | 4.6 | 3.6 | 2.8 | 2.8 | 2.8 | 2.6 | 68 | 370 | 155 | 24 | 8.4 |
| 7 | 4.5 | 4.7 | 3.4 | 2.8 | 2.6 | 2.8 | 2.6 | 72 | 300 | 150 | 23 | 8.4 |
| 8 | 4.3 | 4.5 | 3.4 | 2.8 | 2.6 | 2.8 | 2.8 | 74 | 306 | 170 | 21 | 9.0 |
| 9 | 4.1 | 4.6 | 3.4 | 2.8 | 2.6 | 2.8 | 2.8 | 66 | 385 | 155 | 20 | 19 |
| 10 | 4.1 | 4.6 | 3.4 | 2.8 | 2.6 | 2.8 | 3.0 | 68 | 495 | 155 | 20 | 20 |
| 11 | 3.9 | 4.6 | 3.4 | 2.8 | 2.8 | 2.8 | 3.2 | 68 | 556 | 142 | 18 | 38 |
| 12 | 3.9 | 4.6 | 3.4 | 2.8 | 2.8 | 3.0 | 3.4 | 65 | 562 | 158 | 16 | 28 |
| 13 | 3.7 | 4.6 | 3.4 | 2.8 | 2.8 | 3.0 | 3.6 | 44 | 500 | 129 | 15 | 23 |
| 14 | 3.7 | 4.6 | 3.4 | 2.8 | 2.8 | 2.8 | 4.0 | 37 | 465 | 100 | 16 | 18 |
| 15 | 3.9 | 4.6 | 3.2 | 2.8 | 2.8 | 2.8 | 4.5 | 36 | 400 | 92 | 35 | 16 |
| 16 | 4.3 | 4.4 | 3.0 | 2.8 | 2.8 | 2.8 | 5.9 | 38 | 342 | 80 | 56 | 14 |
| 17 | 4.1 | 4.4 | 3.0 | 2.8 | 2.8 | 2.8 | 12 | 41 | 338 | 74 | 32 | 12 |
| 18 | 4.3 | 4.4 | 3.0 | 2.8 | 2.8 | 2.8 | 12 | 35 | 346 | 71 | 23 | 10 |
| 19 | 4.5 | 4.2 | 3.2 | 2.8 | 2.8 | 2.8 | 12 | 46 | 420 | 68 | 19 | 10 |
| 20 | 4.7 | 4.2 | 3.2 | 2.8 | 2.8 | 2.8 | 14 | 65 | 375 | 65 | 17 | 10 |
| 21 | 6.6 | 4.0 | 3.2 | 2.8 | 2.8 | 2.8 | 20 | 105 | 346 | 56 | 15 | 12 |
| 22 | 5.4 | 4.0 | 3.2 | 2.8 | 2.8 | 2.8 | 34 | 175 | 334 | 52 | 14 | 10 |
| 23 | 5.4 | 4.2 | 3.2 | 2.8 | 2.8 | 2.6 | 37 | 254 | 350 | 53 | 13 | 9.4 |
| 24 | 5.9 | 4.2 | 3.2 | 2.8 | 2.8 | 2.6 | 27 | 239 | 385 | 48 | 14 | 8.4 |
| 25 | 5.6 | 4.2 | 3.2 | 2.8 | 2.8 | 2.6 | 25 | 168 | 365 | 45 | 21 | 7.4 |
| 26 | 5.4 | 4.0 | 3.2 | 2.8 | 2.8 | 2.6 | 26 | 140 | 420 | 45 | 27 | 7.1 |
| 27 | 5.4 | 3.8 | 3.2 | 2.8 | 2.8 | 2.6 | 29 | 133 | 370 | 39 | 23 | 6.8 |
| 28 | 5.0 | 3.6 | 3.0 | 2.8 | 2.8 | 2.6 | 33 | 160 | 330 | 35 | 17 | 6.8 |
| 29 | 5.0 | 3.4 | 3.0 | 2.8 | 2.8 | 2.6 | 38 | 175 | 242 | 33 | 14 | 6.6 |
| 30 | 5.0 | 3.6 | 2.8 | 2.8 | --- | 2.6 | 46 | 133 | 266 | 41 | 14 | 6.1 |
| 31 | 4.8 | --- | 3.0 | 2.8 | --- | 2.6 | --- | 162 | --- | 45 | 13 | --- |
| TOTAL | 146.8 | 129.4 | 102.0 | 86.8 | 81.2 | 86.2 | 416.3 | 2863 | 10804 | 3578 | 699 | 372.9 |
| MEAN | 4.74 | 4.31 | 3.29 | 2.80 | 2.80 | 2.78 | 13.9 | 92.4 | 360 | 115 | 22.5 | 12.4 |
| MAX | 6.6 | 4.8 | 3.8 | 2.8 | 3.0 | 3.0 | 46 | 254 | 562 | 310 | 56 | 38 |
| MIN | 3.7 | 3.4 | 2.8 | 2.8 | 2.6 | 2.6 | 2.5 | 34 | 182 | 33 | 13 | 6.1 |
| AC-FT | 291 | 257 | 202 | 172 | 161 | 171 | 826 | 5680 | 21430 | 7100 | 1390 | 740 |

CAL YR 1979 TOTAL 22449.1 MEAN 61.5 MAX 488 MIN 1.0 AC-FT 44530
WTR YR 1980 TOTAL 19365.6 MEAN 52.9 MAX 562 MIN 2.5 AC-FT 38410

## 09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO

LOCATION.--Lat 39°37'40", long 106°16'24", in NE¼NW¼ sec.18, T.5 S., R.79 W., Eagle County, Hydrologic Unit 14010003, on left bank 100 ft (30 m) downstream from bridge on U.S. Highway 6, 0.4 mi (0.6 km) upstream from Black Gore Creek, 4.5 mi (7.2 km) east of Vail, and 8.5 mi (13.7 km) northeast of Minturn.

DRAINAGE AREA.--14.3 mi$^2$ (37.0 km$^2$).

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,675 ft (2,644 m), from topographic map. Prior to Aug. 26, 1952, at present site; Aug. 26, 1952, to Sept. 30, 1956, at site 20 ft (6 m) downstream; and Oct. 1, 1963, to Sept. 30, 1971, at site 40 ft (12 m) downstream; all at datum 1.45 ft (0.442 m) lower. Oct. 1, 1971, to June 9, 1972, at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records fair except those for winter period and period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--26 years, 29.1 ft$^3$/s (0.824 m$^3$/s), 21,080 acre-ft/yr (26.0 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 588 ft$^3$/s (16.7 m$^3$/s) June 10, 1952, gage height, 6.58 ft (2.006 m), datum then in use, from rating curve extended above 260 ft$^3$/s (7.4 m$^3$/s); maximum gage height, 6.65 ft (2.027 m), June 18, 1951, datum then in use; minimum daily discharge, 1.2 ft$^3$/s (0.034 m$^3$/s) Mar. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 397 ft$^3$/s (11.2 m$^3$/s) at 0200 June 11, gage height, 3.00 ft (0.914 m), only peak above base of 200 ft$^3$/s (5.7 m$^3$/s); minimum daily, 1.6 ft$^3$/s (0.045 m$^3$/s) Apr. 10-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.0 | 3.9 | 2.6 | 2.3 | 2.3 | 2.7 | 2.4 | 17 | 139 | 153 | 17 | 5.7 |
| 2 | 4.0 | 3.9 | 2.6 | 2.3 | 2.3 | 2.7 | 2.4 | 15 | 145 | 145 | 16 | 5.0 |
| 3 | 3.8 | 5.0 | 2.5 | 2.3 | 2.3 | 2.7 | 2.4 | 17 | 165 | 139 | 15 | 4.4 |
| 4 | 3.5 | 4.6 | 2.4 | 2.3 | 2.3 | 2.7 | 2.4 | 21 | 208 | 127 | 15 | 4.1 |
| 5 | 3.5 | 4.8 | 2.4 | 2.7 | 2.3 | 2.7 | 2.4 | 28 | 224 | 116 | 14 | 4.1 |
| 6 | 3.3 | 4.8 | 2.5 | 2.8 | 2.3 | 2.7 | 2.4 | 32 | 230 | 108 | 13 | 4.1 |
| 7 | 3.5 | 4.8 | 2.4 | 2.8 | 2.3 | 2.7 | 2.4 | 35 | 227 | 100 | 12 | 4.1 |
| 8 | 3.5 | 5.0 | 2.4 | 2.9 | 2.1 | 2.7 | 2.2 | 35 | 221 | 95 | 12 | 5.9 |
| 9 | 3.5 | 4.8 | 2.4 | 2.9 | 2.1 | 2.7 | 2.1 | 30 | 242 | 100 | 11 | 12 |
| 10 | 3.5 | 5.0 | 2.4 | 2.9 | 2.2 | 2.7 | 1.6 | 27 | 290 | 94 | 9.8 | 11 |
| 11 | 3.6 | 4.8 | 2.4 | 3.0 | 2.3 | 2.4 | 1.6 | 29 | 296 | 91 | 9.2 | 18 |
| 12 | 3.6 | 5.0 | 2.6 | 3.3 | 2.4 | 2.4 | 1.6 | 31 | 290 | 91 | 9.0 | 12 |
| 13 | 3.6 | 4.3 | 2.7 | 3.6 | 2.6 | 2.4 | 1.6 | 24 | 278 | 100 | 8.7 | 9.8 |
| 14 | 3.8 | 3.8 | 2.7 | 3.5 | 2.7 | 2.4 | 1.8 | 22 | 287 | 70 | 8.7 | 8.4 |
| 15 | 3.8 | 3.5 | 2.6 | 3.3 | 2.7 | 2.4 | 2.6 | 21 | 233 | 59 | 16 | 7.6 |
| 16 | 4.3 | 3.3 | 2.3 | 3.0 | 2.7 | 2.4 | 2.9 | 20 | 227 | 52 | 15 | 9.0 |
| 17 | 4.3 | 3.2 | 2.3 | 2.8 | 2.7 | 2.4 | 3.5 | 21 | 230 | 47 | 11 | 7.5 |
| 18 | 4.3 | 3.0 | 2.3 | 2.8 | 2.7 | 2.4 | 5.7 | 22 | 227 | 46 | 9.0 | 6.8 |
| 19 | 4.3 | 3.0 | 2.3 | 2.6 | 2.7 | 2.4 | 8.4 | 25 | 230 | 42 | 8.4 | 6.4 |
| 20 | 4.4 | 3.2 | 2.3 | 2.6 | 2.7 | 2.4 | 11 | 33 | 215 | 37 | 7.9 | 7.3 |
| 21 | 4.8 | 3.2 | 2.3 | 2.6 | 2.7 | 2.4 | 13 | 57 | 215 | 34 | 7.6 | 6.6 |
| 22 | 5.0 | 3.2 | 2.3 | 2.6 | 2.7 | 2.4 | 17 | 96 | 208 | 31 | 6.1 | 5.7 |
| 23 | 4.6 | 2.9 | 2.3 | 2.6 | 2.7 | 2.4 | 17 | 133 | 205 | 28 | 5.9 | 5.5 |
| 24 | 5.3 | 2.6 | 2.3 | 2.5 | 2.7 | 2.4 | 14 | 145 | 202 | 27 | 7.9 | 5.3 |
| 25 | 5.0 | 2.3 | 2.3 | 2.3 | 2.7 | 2.4 | 11 | 122 | 192 | 26 | 11 | 5.3 |
| 26 | 5.0 | 2.7 | 2.3 | 2.3 | 2.7 | 2.4 | 11 | 104 | 188 | 26 | 13 | 4.8 |
| 27 | 5.3 | 3.0 | 2.3 | 2.3 | 2.7 | 2.4 | 13 | 100 | 178 | 22 | 9.5 | 4.8 |
| 28 | 4.1 | 3.2 | 2.3 | 2.3 | 2.7 | 2.4 | 16 | 118 | 165 | 20 | 8.2 | 4.4 |
| 29 | 4.8 | 2.9 | 2.3 | 2.3 | 2.7 | 2.4 | 21 | 129 | 149 | 20 | 7.1 | 4.4 |
| 30 | 3.8 | 2.7 | 2.3 | 2.3 | --- | 2.4 | 21 | 120 | 153 | 22 | 6.4 | 4.3 |
| 31 | 3.9 | --- | 2.3 | 2.3 | --- | 2.4 | --- | 137 | --- | 20 | 5.9 | --- |
| TOTAL | 127.7 | 112.4 | 74.4 | 83.1 | 73.0 | 77.4 | 217.4 | 1766 | 6459 | 2088 | 326.3 | 204.3 |
| MEAN | 4.12 | 3.75 | 2.40 | 2.68 | 2.52 | 2.50 | 7.25 | 57.0 | 215 | 67.4 | 10.5 | 6.81 |
| MAX | 5.3 | 5.0 | 2.7 | 3.6 | 2.7 | 2.7 | 21 | 145 | 296 | 153 | 17 | 18 |
| MIN | 3.3 | 2.3 | 2.3 | 2.3 | 2.1 | 2.4 | 1.6 | 15 | 139 | 20 | 5.9 | 4.1 |
| AC-FT | 253 | 223 | 148 | 165 | 145 | 154 | 431 | 3500 | 12810 | 4140 | 647 | 405 |

CAL YR 1979 TOTAL 16072.9 MEAN 44.0 MAX 302 MIN 2.1 AC-FT 31880
WTR YR 1980 TOTAL 11609.0 MEAN 31.7 MAX 296 MIN 1.6 AC-FT 23030

NOTE.--NO GAGE-HEIGHT RECORD JAN. 29 TO APR. 9.

## 09066000 BLACK GORE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°35'47", long 106°15'52", Eagle County, Hydrologic Unit 14010003, on right bank 200 ft (61 m) from U.S. Highway 6, 0.3 mi (0.5 km) upstream from Timber Creek, 2.5 mi (4.0 km) upstream from mouth, and 9 mi (14 km) east of Minturn.

DRAINAGE AREA.--11.8 mi² (30.6 km²).

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,150 ft (2,789 m), from topographic map. Prior to October 1963, at site 15 ft (5 m) upstream at present datum.

REMARKS.--Records good except those for winter period and no gage-height record, which are poor. No diversion above station. Natural regulation by two small recreation lakes above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--26 years, 16.7 ft³/s (0.473 m³/s), 12,100 acre-ft/yr (14.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 365 ft³/s (10.3 m³/s) June 7, 1952, gage height, 5.42 ft (1.652 m); maximum gage height, 6.00 ft (1.829 m) Mar. 30, 1968 (backwater from ice); minimum daily discharge, 0.90 ft³/s (0.025 m³/s) Feb. 22, 1968, Jan. 30, 1970, Feb. 4 to Mar. 6, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 238 ft³/s (6.74 m³/s) at 2330 June 10, gage height, 4.02 ft (1.225 m), only peak above base of 150 ft³/s (4.2 m³/s); minimum daily, 2.1 ft³/s (0.059 m³/s) Feb. 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.5 | 11 | 2.6 | 2.3 | 2.3 | 2.8 | 2.4 | 13 | 90 | 42 | 8.7 | 5.4 |
| 2 | 5.6 | 6.3 | 2.5 | 2.3 | 2.3 | 2.8 | 2.4 | 13 | 88 | 40 | 8.7 | 5.1 |
| 3 | 5.2 | 8.7 | 2.5 | 2.3 | 2.3 | 2.8 | 2.4 | 13 | 102 | 37 | 8.4 | 4.8 |
| 4 | 5.1 | 4.7 | 2.5 | 2.5 | 2.3 | 2.8 | 2.4 | 17 | 124 | 34 | 8.4 | 4.6 |
| 5 | 4.9 | 4.8 | 2.5 | 2.7 | 2.3 | 2.8 | 2.4 | 21 | 144 | 30 | 8.1 | 4.4 |
| 6 | 4.8 | 9.4 | 2.5 | 2.8 | 2.3 | 2.8 | 2.4 | 25 | 148 | 26 | 8.1 | 4.3 |
| 7 | 4.7 | 4.6 | 2.5 | 2.8 | 2.1 | 2.8 | 2.4 | 30 | 136 | 25 | 8.1 | 4.0 |
| 8 | 4.7 | 4.7 | 2.5 | 2.8 | 2.1 | 2.8 | 2.4 | 25 | 130 | 24 | 8.1 | 4.8 |
| 9 | 4.7 | 5.4 | 2.5 | 2.8 | 2.1 | 2.6 | 2.4 | 20 | 148 | 21 | 8.1 | 4.9 |
| 10 | 4.6 | 6.7 | 2.5 | 2.8 | 2.3 | 2.5 | 2.4 | 20 | 189 | 21 | 8.1 | 4.8 |
| 11 | 4.6 | 5.2 | 2.5 | 2.9 | 2.4 | 2.4 | 2.4 | 23 | 191 | 22 | 8.1 | 4.7 |
| 12 | 4.6 | 6.3 | 2.5 | 2.9 | 2.5 | 2.4 | 2.4 | 26 | 186 | 24 | 8.4 | 4.0 |
| 13 | 4.6 | 4.5 | 2.5 | 3.1 | 2.7 | 2.3 | 2.4 | 20 | 172 | 22 | 8.7 | 3.8 |
| 14 | 4.6 | 4.0 | 2.5 | 3.1 | 2.7 | 2.3 | 2.5 | 18 | 156 | 18 | 8.9 | 3.5 |
| 15 | 4.4 | 3.5 | 2.5 | 2.9 | 2.7 | 2.3 | 2.6 | 18 | 142 | 16 | 12 | 3.4 |
| 16 | 4.6 | 3.3 | 2.3 | 2.8 | 2.7 | 2.3 | 2.9 | 18 | 126 | 15 | 11 | 3.8 |
| 17 | 4.6 | 3.1 | 2.3 | 2.8 | 2.7 | 2.3 | 4.0 | 17 | 118 | 14 | 10 | 3.3 |
| 18 | 4.8 | 3.2 | 2.3 | 2.8 | 2.7 | 2.3 | 6.0 | 18 | 106 | 13 | 10 | 3.1 |
| 19 | 4.9 | 3.3 | 2.3 | 2.6 | 2.7 | 2.3 | 8.0 | 22 | 98 | 13 | 10 | 3.0 |
| 20 | 5.1 | 3.3 | 2.3 | 2.6 | 2.7 | 2.4 | 10 | 31 | 90 | 12 | 10 | 3.4 |
| 21 | 5.6 | 3.2 | 2.3 | 2.6 | 2.7 | 2.4 | 12 | 46 | 85 | 11 | 9.7 | 3.1 |
| 22 | 5.1 | 2.5 | 2.3 | 2.6 | 2.7 | 2.4 | 13 | 71 | 78 | 10 | 9.2 | 3.0 |
| 23 | 5.8 | 2.5 | 2.3 | 2.6 | 2.8 | 2.4 | 11 | 92 | 72 | 10 | 8.7 | 3.1 |
| 24 | 6.0 | 2.5 | 2.3 | 2.5 | 2.8 | 2.4 | 9.4 | 92 | 70 | 9.4 | 9.2 | 3.1 |
| 25 | 5.4 | 2.7 | 2.3 | 2.3 | 2.8 | 2.4 | 9.4 | 74 | 65 | 9.4 | 9.7 | 3.0 |
| 26 | 5.2 | 3.0 | 2.3 | 2.3 | 2.8 | 2.4 | 11 | 67 | 62 | 9.2 | 8.9 | 3.0 |
| 27 | 5.2 | 3.2 | 2.3 | 2.3 | 2.8 | 2.4 | 13 | 65 | 56 | 8.9 | 7.9 | 2.9 |
| 28 | 4.8 | 2.9 | 2.3 | 2.3 | 2.8 | 2.4 | 15 | 78 | 53 | 8.7 | 6.9 | 2.9 |
| 29 | 4.9 | 2.7 | 2.3 | 2.3 | 2.8 | 2.4 | 17 | 83 | 47 | 8.7 | 6.5 | 2.9 |
| 30 | 4.7 | 2.7 | 2.3 | 2.3 | --- | 2.4 | 17 | 76 | 45 | 9.7 | 6.2 | 2.8 |
| 31 | 6.2 | --- | 2.3 | 2.3 | --- | 2.4 | --- | 85 | --- | 8.9 | 6.0 | --- |
| TOTAL | 156.5 | 132.9 | 74.4 | 81.0 | 73.9 | 77.2 | 195.0 | 1237 | 3317 | 572.9 | 268.8 | 112.9 |
| MEAN | 5.05 | 4.43 | 2.40 | 2.61 | 2.55 | 2.49 | 6.50 | 39.9 | 111 | 18.5 | 8.67 | 3.76 |
| MAX | 6.5 | 11 | 2.6 | 3.1 | 2.8 | 2.8 | 17 | 92 | 191 | 42 | 12 | 5.4 |
| MIN | 4.4 | 2.5 | 2.3 | 2.3 | 2.1 | 2.3 | 2.4 | 13 | 45 | 8.7 | 6.0 | 2.8 |
| AC-FT | 310 | 264 | 148 | 161 | 147 | 153 | 387 | 2450 | 6580 | 1140 | 533 | 224 |

CAL YR 1979 TOTAL 7865.58 MEAN 21.5 MAX 189 MIN .90 AC-FT 15600
WTR YR 1980 TOTAL 6299.50 MEAN 17.2 MAX 191 MIN 2.1 AC-FT 12500

NOTE.--NO GAGE-HEIGHT RECORD NOV. 13 TO APR. 23.

## 09066100 BIGHORN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'24", long 106°17'34", in N½ sec.12, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.3 mi (0.5 km) upstream from U.S. Highway 6, 0.4 mi (0.6 km) upstream from mouth, 4.5 mi (7.2 km) east of Vail, and 8.5 mi (13.7 km) northeast of Minturn.

DRAINAGE AREA.--4.37 mi$^2$ (11.32 km$^2$).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,625 ft (2,629 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 8.95 ft$^3$/s (0.253 m$^3$/s), 6,480 acre-ft/yr (7.99 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225 ft$^3$/s (6.37 m$^3$/s) June 10, 1973, gage height, 3.82 ft (1.164 m), from rating curve extended above 82 ft$^3$/s (2.3 m$^3$/s); minimum daily determined, 0.10 ft$^3$/s (0.003 m$^3$/s) Feb. 8, 1967, Jan. 30, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 134 ft$^3$/s (3.79 m$^3$/s) at 2030 June 12, gage height, 3.54 ft (1.079 m), only peak above base of 50 ft$^3$/s (1.4 m$^3$/s); minimum daily, 0.47 ft$^3$/s (0.013 m$^3$/s) Feb. 7-9.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.7 | .86 | .70 | .66 | .54 | .54 | .54 | 7.2 | 92 | 53 | 6.8 | 3.4 |
| 2 | 1.7 | .86 | .70 | .66 | .54 | .54 | .56 | 6.0 | 84 | 48 | 6.4 | 3.2 |
| 3 | 1.6 | .86 | .70 | .66 | .54 | .54 | .60 | 6.4 | 82 | 50 | 6.0 | 3.2 |
| 4 | 1.5 | .86 | .70 | .66 | .54 | .54 | .62 | 7.2 | 92 | 44 | 6.0 | 3.2 |
| 5 | 1.5 | .86 | .70 | .66 | .54 | .54 | .64 | 10 | 92 | 35 | 5.6 | 3.4 |
| 6 | 1.4 | .90 | .66 | .70 | .52 | .54 | .66 | 12 | 90 | 30 | 5.4 | 3.5 |
| 7 | 1.3 | .90 | .66 | .74 | .47 | .54 | .68 | 14 | 88 | 27 | 5.6 | 3.5 |
| 8 | 1.3 | .90 | .66 | .74 | .47 | .54 | .70 | 14 | 88 | 28 | 5.4 | 3.8 |
| 9 | 1.2 | .90 | .66 | .74 | .47 | .54 | .74 | 12 | 98 | 28 | 5.2 | 4.5 |
| 10 | 1.2 | .90 | .66 | .74 | .54 | .54 | .84 | 10 | 94 | 27 | 4.6 | 4.2 |
| 11 | 1.1 | .90 | .66 | .74 | .54 | .52 | .96 | 11 | 97 | 24 | 4.3 | 6.6 |
| 12 | 1.1 | .90 | .66 | .74 | .54 | .50 | .96 | 10 | 107 | 21 | 4.2 | 4.6 |
| 13 | 1.1 | .90 | .66 | .74 | .54 | .50 | 1.1 | 9.3 | 89 | 19 | 4.2 | 4.0 |
| 14 | 1.1 | .90 | .66 | .74 | .54 | .50 | 1.2 | 8.8 | 84 | 16 | 4.0 | 3.8 |
| 15 | 1.1 | .90 | .66 | .74 | .54 | .50 | 1.2 | 9.3 | 74 | 15 | 7.3 | 3.5 |
| 16 | 1.2 | .90 | .66 | .70 | .54 | .50 | 1.3 | 18 | 68 | 12 | 5.8 | 3.8 |
| 17 | 1.2 | .90 | .66 | .69 | .54 | .50 | 1.4 | 43 | 66 | 12 | 4.3 | 3.4 |
| 18 | 1.1 | .90 | .66 | .64 | .54 | .50 | 1.5 | 78 | 70 | 12 | 4.0 | 3.2 |
| 19 | 1.0 | .90 | .66 | .58 | .54 | .50 | 1.7 | 76 | 70 | 12 | 3.8 | 3.1 |
| 20 | 1.1 | .90 | .66 | .54 | .54 | .50 | 2.0 | 56 | 66 | 11 | 3.5 | 3.5 |
| 21 | 1.0 | .90 | .66 | .54 | .54 | .50 | 3.1 | 47 | 66 | 9.6 | 3.2 | 3.1 |
| 22 | .94 | .80 | .66 | .54 | .54 | .50 | 5.0 | 38 | 68 | 9.3 | 3.0 | 3.1 |
| 23 | 1.0 | .68 | .66 | .54 | .54 | .50 | 6.2 | 44 | 72 | 9.0 | 3.1 | 3.1 |
| 24 | 1.2 | .68 | .66 | .54 | .54 | .50 | 5.4 | 48 | 70 | 8.6 | 3.5 | 3.0 |
| 25 | 1.1 | .70 | .66 | .54 | .54 | .50 | 4.8 | 39 | 66 | 8.0 | 5.2 | 2.7 |
| 26 | 1.1 | .70 | .66 | .54 | .54 | .50 | 5.4 | 47 | 66 | 8.6 | 6.4 | 2.6 |
| 27 | 1.0 | .70 | .66 | .54 | .54 | .50 | 6.0 | 47 | 66 | 7.8 | 4.5 | 2.6 |
| 28 | .86 | .70 | .66 | .54 | .54 | .50 | 6.9 | 45 | 59 | 7.0 | 4.2 | 2.5 |
| 29 | .86 | .70 | .66 | .54 | .54 | .50 | 8.0 | 47 | 50 | 6.8 | 3.7 | 2.2 |
| 30 | .86 | .70 | .66 | .54 | --- | .50 | 8.6 | 70 | 54 | 8.0 | 3.7 | 2.4 |
| 31 | .86 | --- | .66 | .54 | --- | .52 | --- | 82 | --- | 7.6 | 3.5 | --- |
| TOTAL | 36.28 | 25.06 | 20.66 | 19.74 | 15.43 | 15.94 | 79.30 | 972.2 | 2328 | 614.3 | 146.4 | 102.7 |
| MEAN | 1.17 | .84 | .67 | .64 | .53 | .51 | 2.64 | 31.4 | 77.6 | 19.8 | 4.72 | 3.42 |
| MAX | 1.7 | .90 | .70 | .74 | .54 | .54 | 8.6 | 82 | 107 | 53 | 7.3 | 6.6 |
| MIN | .86 | .68 | .66 | .54 | .47 | .50 | .54 | 6.0 | 50 | 6.8 | 3.0 | 2.2 |
| AC-FT | 72 | 50 | 41 | 39 | 31 | 32 | 157 | 1930 | 4620 | 1220 | 290 | 204 |

CAL YR 1979 TOTAL 5884.85 MEAN 16.1 MAX 113 MIN .25 AC-FT 11670
WTR YR 1980 TOTAL 4376.01 MEAN 12.0 MAX 107 MIN .47 AC-FT 8680

NOTE.--NO GAGE-HEIGHT RECORD OCT. 30 TO MAY 12.

## 09066150 PITKIN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'37", long 106°18'07", in SW¼SW¼ sec.1, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 100 ft (30 m) downstream from Pitkin ditch headgate, 1,000 ft (300 m) upstream from U.S. Highway 6, 1,200 ft (370 m) upstream from mouth, 4.0 mi (6.4 km) east of Vail, and 8 mi (13 km) northeast of Minturn.

DRAINAGE AREA.--5.39 mi$^2$ (13.96 km$^2$).

PERIOD OF RECORD.--Annual maximum and occasional low-flow measurements water years 1964-66. October 1966 to current year.

REVISED RECORDS.--WRD Colo. 1971: 1967-70.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,525 ft (2,598 m), from topographic map. Oct. 1, 1964, to Sept. 30, 1966, crest-stage gage at datum 0.98 ft (0.299 m) lower.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. Diversions above station by Pitkin ditch for irrigation downstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 11.0 ft$^3$/s (0.312 m$^3$/s), 7,970 acre-ft/yr (9.83 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 221 ft$^3$/s (6.26 m$^3$/s) June 15, 1978, gage height, 2.55 ft (0.777 m); maximum gage height, 2.79 ft (0.850 m) June 20, 1968; minimum daily discharge, 0.24 ft$^3$/s (0.007 m$^3$/s) Oct. 29 to Nov. 1, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 165 ft$^3$/s (4.67 m$^3$/s) at 2030 June 12, gage height, 2.47 ft (0.753 m), only peak above base of 60 ft$^3$/s (1.7 m$^3$/s); minimum daily, 1.0 ft$^3$/s (0.028 m$^3$/s) Dec. 1-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | 1.2 | 1.0 | 1.3 | 1.7 | 1.7 | 1.2 | 8.0 | 77 | 50 | 10 | 4.2 |
| 2 | 2.4 | 1.3 | 1.0 | 1.3 | 1.7 | 1.7 | 1.2 | 6.9 | 77 | 50 | 8.6 | 3.9 |
| 3 | 2.3 | 1.4 | 1.0 | 1.4 | 1.7 | 1.6 | 1.2 | 6.9 | 83 | 50 | 8.6 | 3.6 |
| 4 | 2.3 | 1.4 | 1.0 | 1.5 | 1.7 | 1.6 | 1.2 | 7.4 | 91 | 44 | 8.0 | 3.6 |
| 5 | 2.3 | 1.4 | 1.0 | 1.5 | 1.7 | 1.6 | 1.2 | 11 | 94 | 41 | 7.4 | 3.6 |
| 6 | 2.3 | 1.3 | 1.2 | 1.5 | 1.7 | 1.6 | 1.2 | 16 | 98 | 40 | 6.9 | 3.6 |
| 7 | 2.3 | 1.4 | 1.3 | 1.5 | 1.7 | 1.6 | 1.2 | 16 | 91 | 40 | 6.4 | 3.6 |
| 8 | 2.3 | 1.4 | 1.3 | 1.5 | 1.7 | 1.6 | 1.3 | 17 | 98 | 38 | 5.9 | 4.2 |
| 9 | 2.3 | 1.4 | 1.3 | 1.6 | 1.7 | 1.6 | 1.1 | 17 | 108 | 38 | 5.9 | 6.4 |
| 10 | 2.3 | 1.4 | 1.3 | 2.0 | 1.7 | 1.6 | 1.1 | 16 | 118 | 36 | 5.9 | 5.4 |
| 11 | 2.3 | 1.4 | 1.3 | 1.9 | 1.7 | 1.6 | 1.1 | 16 | 125 | 36 | 5.4 | 8.0 |
| 12 | 2.3 | 1.5 | 1.3 | 1.8 | 1.7 | 1.4 | 1.1 | 16 | 118 | 35 | 5.0 | 5.9 |
| 13 | 2.4 | 1.5 | 1.3 | 1.6 | 1.7 | 1.3 | 1.2 | 14 | 115 | 33 | 5.0 | 5.4 |
| 14 | 2.5 | 1.4 | 1.3 | 1.5 | 1.7 | 1.3 | 1.2 | 13 | 88 | 30 | 5.0 | 5.0 |
| 15 | 2.6 | 1.3 | 1.3 | 1.5 | 1.7 | 1.3 | 1.3 | 12 | 71 | 28 | 17 | 4.6 |
| 16 | 2.7 | 1.2 | 1.3 | 1.5 | 1.7 | 1.3 | 1.3 | 12 | 63 | 26 | 8.6 | 4.2 |
| 17 | 2.8 | 1.2 | 1.3 | 1.4 | 1.7 | 1.3 | 1.5 | 12 | 61 | 26 | 7.4 | 4.2 |
| 18 | 2.8 | 1.2 | 1.3 | 1.4 | 1.7 | 1.3 | 1.9 | 12 | 52 | 26 | 6.4 | 3.9 |
| 19 | 2.8 | 1.2 | 1.3 | 1.4 | 1.7 | 1.3 | 2.5 | 13 | 41 | 26 | 5.9 | 3.9 |
| 20 | 2.8 | 1.2 | 1.3 | 1.4 | 1.7 | 1.3 | 2.8 | 18 | 46 | 24 | 5.4 | 3.9 |
| 21 | 2.8 | 1.1 | 1.3 | 1.4 | 1.7 | 1.3 | 4.2 | 35 | 46 | 22 | 5.0 | 3.9 |
| 22 | 2.8 | 1.1 | 1.3 | 1.4 | 1.7 | 1.3 | 5.0 | 52 | 48 | 21 | 4.6 | 3.6 |
| 23 | 2.9 | 1.1 | 1.3 | 1.4 | 1.7 | 1.3 | 5.0 | 66 | 50 | 19 | 4.2 | 3.6 |
| 24 | 3.0 | 1.1 | 1.3 | 1.4 | 1.7 | 1.3 | 5.0 | 66 | 50 | 19 | 4.6 | 3.3 |
| 25 | 3.0 | 1.1 | 1.3 | 1.6 | 1.7 | 1.3 | 5.0 | 63 | 52 | 13 | 7.4 | 3.3 |
| 26 | 2.8 | 1.1 | 1.3 | 1.7 | 1.7 | 1.2 | 5.0 | 59 | 50 | 16 | 8.0 | 3.3 |
| 27 | 2.6 | 1.1 | 1.3 | 1.7 | 1.7 | 1.2 | 4.6 | 59 | 50 | 12 | 6.4 | 3.3 |
| 28 | 2.0 | 1.1 | 1.3 | 1.7 | 1.7 | 1.2 | 5.0 | 63 | 50 | 11 | 5.0 | 3.0 |
| 29 | 1.7 | 1.1 | 1.3 | 1.7 | 1.7 | 1.2 | 6.4 | 69 | 48 | 10 | 4.6 | 3.0 |
| 30 | 1.3 | 1.1 | 1.3 | 1.7 | --- | 1.2 | 8.0 | 66 | 50 | 13 | 4.6 | 3.0 |
| 31 | 1.1 | --- | 1.3 | 1.7 | --- | 1.2 | --- | 74 | --- | 11 | 4.6 | --- |
| TOTAL | 75.3 | 37.7 | 38.7 | 47.9 | 49.3 | 43.3 | 81.0 | 932.2 | 2209 | 884 | 203.7 | 124.4 |
| MEAN | 2.43 | 1.26 | 1.25 | 1.55 | 1.70 | 1.40 | 2.70 | 30.1 | 73.6 | 28.5 | 6.57 | 4.15 |
| MAX | 3.0 | 1.5 | 1.3 | 2.0 | 1.7 | 1.7 | 8.0 | 74 | 125 | 50 | 17 | 8.0 |
| MIN | 1.1 | 1.1 | 1.0 | 1.3 | 1.7 | 1.2 | 1.1 | 6.9 | 41 | 10 | 4.2 | 3.0 |
| AC-FT | 149 | 75 | 77 | 95 | 98 | 86 | 161 | 1850 | 4380 | 1750 | 404 | 247 |

CAL YR 1979 TOTAL 5495.0 MEAN 15.1 MAX 88 MIN 1.0 AC-FT 10900
WTR YR 1980 TOTAL 4726.5 MEAN 12.9 MAX 125 MIN 1.0 AC-FT 9380

NOTE.--NO GAGE-HEIGHT RECORD OCT. 1 TO NOV. 6, NOV. 14 TO APR. 7.

## 09066200 BOOTH CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°39'02", long 106°19'16", at west line of sec.2, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.2 mi (0.3 km) upstream from U.S. Highway 6, 0.4 mi (0.6 km) upstream from mouth, 3.0 mi (4.8 km) northeast of Vail, and 7.0 mi (11.3 km) northeast of Minturn.

DRAINAGE AREA.--6.03 mi² (15.62 km²).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,413 ft (2,564 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. No diversion or regulation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 11.6 ft³/s (0.329 m³/s), 8,400 acre-ft/yr (10.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 355 ft³/s (10.1 m³/s) June 15, 1978, gage height, 4.07 ft (1.241 m); maximum gage height, 4.29 ft (1.308 m) July 4, 1975 (backwater from debris); minimum daily discharge, 0.20 ft³/s (0.006 m³/s) Feb. 8, 1967, Jan. 29, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft³/s (2.3 m³/s) and maximum (*):

| Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) | Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| June 11 | 1845 | *153 | 4.47 | 3.76 | 1.146 | June 17 | 1930 | a |  | *4.06 | 1.237 |
| June 17 | 2000 | 138 | 3.91 | 3.62 | 1.103 |  |  |  |  |  |  |

a Backwater from debris.

Minimum daily discharge, 0.77 ft³/s (0.022 m³/s) Aug. 22.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .92 | 1.1 | 1.1 | 1.1 | 1.7 | 1.6 | 1.3 | 8.9 | 69 | 60 | 5.1 | 1.6 |
| 2 | .88 | 1.1 | 1.1 | 1.1 | 1.7 | 1.6 | 1.3 | 7.7 | 65 | 38 | 4.8 | 1.5 |
| 3 | .88 | 1.1 | 1.1 | 1.1 | 1.7 | 1.6 | 1.3 | 7.5 | 74 | 31 | 4.8 | 1.3 |
| 4 | .88 | 1.1 | 1.1 | 1.2 | 1.7 | 1.6 | 1.3 | 8.7 | 105 | 19 | 4.5 | 1.2 |
| 5 | .88 | 1.1 | 1.1 | 1.2 | 1.7 | 1.6 | 1.3 | 13 | 101 | 15 | 4.2 | 1.2 |
| 6 | .88 | 1.2 | 1.1 | 1.3 | 1.7 | 1.6 | 1.3 | 16 | 84 | 14 | 4.0 | 1.2 |
| 7 | .84 | 1.2 | 1.1 | 1.4 | 1.7 | 1.6 | 1.2 | 17 | 80 | 14 | 3.9 | 1.2 |
| 8 | .84 | 1.3 | 1.1 | 1.5 | 1.6 | 1.6 | 1.2 | 18 | 88 | 14 | 3.8 | 1.4 |
| 9 | .88 | 1.3 | 1.1 | 1.6 | 1.5 | 1.6 | 1.2 | 15 | 95 | 12 | 3.8 | 1.8 |
| 10 | .88 | 1.3 | 1.1 | 1.7 | 1.5 | 1.6 | 1.2 | 13 | 86 | 12 | 3.8 | 1.8 |
| 11 | .88 | 1.3 | 1.1 | 1.7 | 1.6 | 1.6 | 1.2 | 14 | 103 | 12 | 3.5 | 3.2 |
| 12 | .88 | 1.3 | 1.1 | 1.7 | 1.6 | 1.5 | 1.2 | 14 | 78 | 12 | 3.4 | 2.0 |
| 13 | .92 | 1.3 | 1.1 | 1.7 | 1.6 | 1.4 | 1.3 | 11 | 80 | 11 | 3.3 | 1.7 |
| 14 | .92 | 1.3 | 1.1 | 1.7 | 1.6 | 1.3 | 1.4 | 9.3 | 88 | 9.8 | 3.2 | 1.5 |
| 15 | .92 | 1.2 | 1.1 | 1.7 | 1.6 | 1.3 | 1.5 | 8.5 | 63 | 9.1 | 3.3 | 1.5 |
| 16 | .92 | 1.2 | 1.1 | 1.7 | 1.6 | 1.3 | 1.5 | 8.3 | 60 | 8.3 | 3.0 | 1.6 |
| 17 | 1.0 | 1.2 | 1.1 | 1.7 | 1.6 | 1.3 | 1.6 | 8.1 | 74 | 8.5 | 2.9 | 1.5 |
| 18 | 1.0 | 1.2 | 1.1 | 1.7 | 1.6 | 1.3 | 1.8 | 8.3 | 112 | 8.5 | 2.7 | 1.4 |
| 19 | 1.0 | 1.2 | 1.1 | 1.7 | 1.6 | 1.3 | 2.0 | 9.8 | 88 | 8.7 | 2.8 | 1.4 |
| 20 | 1.0 | 1.2 | 1.1 | 1.7 | 1.6 | 1.3 | 2.2 | 12 | 92 | 8.5 | 2.6 | 1.6 |
| 21 | 1.1 | 1.2 | 1.1 | 1.7 | 1.6 | 1.3 | 2.3 | 21 | 101 | 8.3 | 1.7 | 1.5 |
| 22 | 1.1 | 1.1 | 1.1 | 1.7 | 1.6 | 1.3 | 4.5 | 48 | 99 | 8.3 | .74 | 1.4 |
| 23 | 1.1 | 1.1 | 1.1 | 1.7 | 1.6 | 1.3 | 7.7 | 69 | 103 | 8.7 | .92 | 1.4 |
| 24 | 1.2 | 1.1 | 1.1 | 1.7 | 1.6 | 1.3 | 6.6 | 62 | 97 | 8.5 | 1.2 | 1.4 |
| 25 | 1.2 | 1.0 | 1.1 | 1.7 | 1.6 | 1.3 | 5.8 | 56 | 110 | 8.1 | 2.1 | 1.3 |
| 26 | 1.2 | 1.1 | 1.1 | 1.7 | 1.6 | 1.3 | 6.6 | 48 | 105 | 7.3 | 2.1 | 1.3 |
| 27 | 1.2 | 1.2 | 1.1 | 1.7 | 1.6 | 1.3 | 7.1 | 51 | 95 | 6.9 | 2.2 | 1.2 |
| 28 | 1.1 | 1.2 | 1.1 | 1.7 | 1.6 | 1.3 | 8.1 | 58 | 71 | 6.0 | 1.8 | 1.2 |
| 29 | 1.1 | 1.2 | 1.1 | 1.7 | 1.6 | 1.3 | 10 | 60 | 50 | 5.6 | 1.7 | 1.2 |
| 30 | 1.1 | 1.1 | 1.1 | 1.7 | --- | 1.3 | 11 | 51 | 62 | 6.0 | 1.6 | 1.2 |
| 31 | 1.1 | --- | 1.1 | 1.7 | --- | 1.3 | --- | 67 | --- | 5.4 | 1.6 | --- |
| TOTAL | 30.70 | 35.5 | 34.1 | 48.9 | 46.9 | 43.9 | 98.0 | 819.1 | 2578 | 404.5 | 91.06 | 44.7 |
| MEAN | .99 | 1.18 | 1.10 | 1.58 | 1.62 | 1.42 | 3.27 | 26.4 | 85.9 | 13.0 | 2.94 | 1.49 |
| MAX | 1.2 | 1.3 | 1.1 | 1.7 | 1.7 | 1.6 | 11 | 69 | 112 | 60 | 5.1 | 3.2 |
| MIN | .84 | 1.0 | 1.1 | 1.1 | 1.5 | 1.3 | 1.2 | 7.5 | 50 | 5.4 | .74 | 1.2 |
| AC-FT | 61 | 70 | 68 | 97 | 93 | 87 | 194 | 1620 | 5110 | 802 | 181 | 89 |

CAL YR 1979 TOTAL 5301.85 MEAN 14.5 MAX 110 MIN .70 AC-FT 10520
WTR YR 1980 TOTAL 4275.36 MEAN 11.7 MAX 112 MIN .74 AC-FT 8480

NOTE.--NO GAGE-HEIGHT RECORD NOV. 13 TO APR. 22.

## 09066300 MIDDLE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'45", long 106°22'54", in sec.6, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 200 ft (61 m) upstream from Interstate Highway 70, 0.2 mi (0.3 km) upstream from mouth, and 5.0 mi (8.0 km) northeast of Minturn.

DRAINAGE AREA.--5.97 $mi^2$ (15.46 $km^2$).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,200 ft (2,499 m), from topographic map. Prior to Oct. 1, 1977 at site 700 ft upstream at different datum.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion or regulation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 5.67 $ft^3/s$ (0.161 $m^3/s$), 4,110 acre-ft/yr (5.07 $hm^3/yr$).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 116 $ft^3/s$ (3.29 $m^3/s$) June 20, 1974, gage height, 2.65 ft (0.808 m) datum then in use; maximum gage height, 3.23 ft (0.985 m) datum then in use, July 4, 1975 (backwater from debris); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74 $ft^3/s$ (2.10 $m^3/s$) at 1830 June 12, gage height, 2.96 ft (0.902 m), only peak above base of 60 $ft^3/s$ (1.7 $m^3/s$); minimum daily, 0.23 $ft^3/s$ (0.007 $m^3/s$) Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .41 | .48 | .38 | .34 | .34 | .40 | .36 | 2.0 | 26 | 35 | 3.3 | 1.2 |
| 2 | .39 | .54 | .37 | .34 | .34 | .40 | .36 | 2.0 | 27 | 35 | 3.2 | 1.1 |
| 3 | .37 | .59 | .36 | .34 | .34 | .40 | .36 | 2.1 | 30 | 32 | 3.1 | 1.1 |
| 4 | .37 | .61 | .35 | .37 | .34 | .40 | .36 | 2.2 | 35 | 28 | 3.0 | 1.1 |
| 5 | .37 | .63 | .36 | .41 | .34 | .40 | .36 | 2.8 | 42 | 24 | 2.8 | 1.0 |
| 6 | .37 | .61 | .35 | .41 | .34 | .40 | .36 | 3.2 | 46 | 22 | 2.6 | 1.0 |
| 7 | .37 | .61 | .35 | .41 | .32 | .40 | .33 | 3.8 | 47 | 20 | 2.5 | 1.0 |
| 8 | .36 | .61 | .35 | .42 | .32 | .40 | .23 | 3.9 | 48 | 19 | 2.3 | 1.3 |
| 9 | .36 | .61 | .35 | .43 | .32 | .40 | .24 | 4.0 | 54 | 17 | 2.3 | 1.6 |
| 10 | .37 | .61 | .35 | .43 | .34 | .38 | .26 | 4.0 | 57 | 15 | 2.0 | 1.7 |
| 11 | .37 | .61 | .37 | .47 | .35 | .36 | .26 | 4.6 | 61 | 14 | 1.9 | 1.9 |
| 12 | .37 | .61 | .38 | .50 | .37 | .36 | .26 | 4.8 | 63 | 13 | 1.9 | 1.4 |
| 13 | .39 | .55 | .38 | .51 | .39 | .36 | .24 | 4.5 | 66 | 12 | 1.8 | 1.2 |
| 14 | .43 | .52 | .38 | .50 | .40 | .36 | .29 | 4.2 | 65 | 11 | 1.8 | 1.2 |
| 15 | .45 | .49 | .36 | .46 | .40 | .36 | .36 | 4.1 | 64 | 9.7 | 2.9 | 1.1 |
| 16 | .48 | .47 | .34 | .42 | .40 | .36 | .39 | 4.3 | 59 | 8.8 | 2.2 | 1.2 |
| 17 | .50 | .44 | .34 | .41 | .40 | .36 | .48 | 4.6 | 58 | 7.8 | 2.0 | 1.2 |
| 18 | .54 | .44 | .34 | .40 | .40 | .36 | .59 | 4.3 | 57 | 7.4 | 1.7 | 1.1 |
| 19 | .54 | .46 | .34 | .38 | .40 | .36 | .78 | 4.8 | 58 | 6.7 | 1.6 | 1.0 |
| 20 | .54 | .46 | .34 | .38 | .40 | .36 | .86 | 5.5 | 58 | 6.2 | 1.5 | 1.2 |
| 21 | .61 | .46 | .34 | .38 | .40 | .36 | 1.0 | 7.0 | 58 | 5.7 | 1.5 | 1.1 |
| 22 | .57 | .44 | .34 | .38 | .40 | .36 | 1.2 | 9.9 | 57 | 5.2 | 1.4 | 1.0 |
| 23 | .59 | .39 | .34 | .38 | .40 | .36 | 1.2 | 14 | 56 | 5.0 | 1.4 | 1.0 |
| 24 | .65 | .34 | .34 | .35 | .40 | .36 | 1.2 | 18 | 55 | 4.8 | 1.5 | 1.0 |
| 25 | .65 | .38 | .34 | .34 | .40 | .36 | 1.3 | 17 | 53 | 4.8 | 1.8 | 1.0 |
| 26 | .68 | .43 | .34 | .34 | .40 | .36 | 1.4 | 17 | 52 | 4.6 | 1.6 | .97 |
| 27 | .68 | .46 | .34 | .34 | .40 | .36 | 1.4 | 18 | 50 | 4.2 | 1.4 | .94 |
| 28 | .59 | .43 | .34 | .34 | .40 | .36 | 1.6 | 20 | 44 | 4.1 | 1.4 | .94 |
| 29 | .59 | .40 | .34 | .34 | .40 | .36 | 1.9 | 21 | 39 | 4.0 | 1.3 | .92 |
| 30 | .54 | .38 | .34 | .34 | --- | .36 | 2.1 | 22 | 37 | 4.1 | 1.2 | .89 |
| 31 | .39 | --- | .34 | .34 | --- | .36 | --- | 25 | --- | 3.6 | 1.3 | --- |
| TOTAL | 14.89 | 15.06 | 10.88 | 12.20 | 10.85 | 11.54 | 22.03 | 264.6 | 1522 | 393.7 | 62.2 | 34.36 |
| MEAN | .48 | .50 | .35 | .39 | .37 | .37 | .73 | 8.54 | 50.7 | 12.7 | 2.01 | 1.15 |
| MAX | .68 | .63 | .38 | .51 | .40 | .40 | 2.1 | 25 | 66 | 35 | 3.3 | 1.9 |
| MIN | .36 | .34 | .34 | .34 | .32 | .36 | .23 | 2.0 | 26 | 3.6 | 1.2 | .89 |
| AC-FT | 30 | 30 | 22 | 24 | 22 | 23 | 44 | 525 | 3020 | 781 | 123 | 68 |

| | | | | | | |
|---|---|---|---|---|---|---|
| CAL YR 1979 | TOTAL | 3208.11 | MEAN 8.79 | MAX 63 | MIN .15 | AC-FT 6360 |
| WTR YR 1980 | TOTAL | 2374.31 | MEAN 6.49 | MAX 66 | MIN .23 | AC-FT 4710 |

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 TO APR. 7.

## 09066400 RED SANDSTONE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°40'58", long 106°24'03", Eagle County, Hydrologic Unit 14010003, on left bank 150 ft (46 m) upstream from road culvert, 1,400 ft (430 m) upstream from Indian Creek, and 6.8 mi (10.9 km) north of Minturn.

DRAINAGE AREA.--7.27 mi² (18.83 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,212 ft (2,809 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 8.82 ft³/s (0.250 m³/s), 6,390 acre-ft/yr (7.88 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 207 ft³/s (5.86 m³/s) June 10, 1973, gage height, 4.41 ft (1.344 m), from rating curve extended above 120 ft³/s (3.4 m³/s); minimum daily, 0.20 ft³/s (0.006 m³/s) Jan. 30, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 137 ft³/s (3.88 m³/s) at 2000 June 6, gage height, 4.12 ft (1.256 m), only peak above base of 70 ft³/s (2.0 m³/s); minimum daily, 1.0 ft³/s (0.028 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.2 | 1.6 | 1.3 | 1.1 | 1.2 | 1.2 | 1.3 | 7.0 | 71 | 23 | 2.9 | 1.7 |
| 2 | 1.1 | 1.6 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 6.5 | 69 | 23 | 2.8 | 1.6 |
| 3 | 1.1 | 1.6 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 6.5 | 80 | 22 | 2.7 | 1.5 |
| 4 | 1.1 | 1.6 | 1.3 | 1.2 | 1.2 | 1.2 | 1.3 | 8.4 | 89 | 18 | 2.7 | 1.5 |
| 5 | 1.1 | 1.6 | 1.3 | 1.3 | 1.2 | 1.2 | 1.4 | 11 | 98 | 16 | 2.5 | 1.4 |
| 6 | 1.1 | 1.6 | 1.3 | 1.3 | 1.2 | 1.2 | 1.4 | 14 | 113 | 15 | 2.4 | 1.4 |
| 7 | 1.1 | 1.7 | 1.3 | 1.3 | 1.2 | 1.2 | 1.4 | 15 | 104 | 14 | 2.3 | 1.5 |
| 8 | 1.1 | 1.7 | 1.3 | 1.2 | 1.2 | 1.2 | 1.3 | 16 | 103 | 13 | 2.2 | 2.2 |
| 9 | 1.2 | 1.7 | 1.3 | 1.2 | 1.3 | 1.2 | 1.4 | 14 | 106 | 12 | 2.2 | 2.6 |
| 10 | 1.2 | 1.7 | 1.3 | 1.1 | 1.3 | 1.3 | 1.5 | 15 | 107 | 11 | 2.1 | 2.6 |
| 11 | 1.2 | 1.7 | 1.3 | 1.0 | 1.3 | 1.3 | 1.6 | 17 | 109 | 10 | 2.0 | 3.5 |
| 12 | 1.1 | 1.7 | 1.2 | 1.1 | 1.3 | 1.3 | 1.6 | 17 | 111 | 9.7 | 1.9 | 2.2 |
| 13 | 1.1 | 1.7 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 13 | 103 | 9.0 | 2.0 | 1.9 |
| 14 | 1.1 | 1.6 | 1.2 | 1.3 | 1.3 | 1.3 | 1.4 | 11 | 92 | 8.2 | 2.1 | 1.8 |
| 15 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.4 | 1.6 | 11 | 78 | 7.1 | 4.4 | 1.7 |
| 16 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.8 | 12 | 70 | 6.5 | 3.1 | 1.8 |
| 17 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 2.1 | 12 | 63 | 6.0 | 2.5 | 1.7 |
| 18 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 2.6 | 12 | 59 | 5.5 | 2.2 | 1.6 |
| 19 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 3.4 | 13 | 57 | 5.3 | 2.1 | 1.5 |
| 20 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 3.8 | 16 | 52 | 4.9 | 2.0 | 2.0 |
| 21 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 5.1 | 25 | 48 | 4.6 | 1.9 | 1.7 |
| 22 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 5.5 | 40 | 45 | 4.3 | 1.9 | 1.5 |
| 23 | 2.1 | 1.3 | 1.2 | 1.3 | 1.3 | 1.3 | 5.3 | 53 | 43 | 4.1 | 1.8 | 1.5 |
| 24 | 1.8 | 1.3 | 1.2 | 1.2 | 1.3 | 1.3 | 4.9 | 57 | 40 | 3.9 | 2.1 | 1.5 |
| 25 | 1.7 | 1.3 | 1.2 | 1.2 | 1.3 | 1.3 | 5.3 | 50 | 37 | 3.8 | 2.5 | 1.4 |
| 26 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 5.6 | 47 | 35 | 3.8 | 2.4 | 1.4 |
| 27 | 1.5 | 1.1 | 1.2 | 1.2 | 1.2 | 1.3 | 5.8 | 49 | 32 | 3.4 | 2.0 | 1.4 |
| 28 | 1.5 | 1.1 | 1.2 | 1.2 | 1.3 | 1.3 | 7.8 | 55 | 28 | 3.2 | 1.8 | 1.4 |
| 29 | 1.3 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 8.6 | 58 | 25 | 3.1 | 1.7 | 1.4 |
| 30 | 1.3 | 1.3 | 1.1 | 1.2 | --- | 1.3 | 8.6 | 59 | 25 | 3.5 | 1.7 | 1.3 |
| 31 | 1.6 | --- | 1.1 | 1.2 | --- | 1.3 | --- | 69 | --- | 3.0 | 1.8 | --- |
| TOTAL | 40.1 | 43.2 | 38.9 | 38.0 | 36.7 | 39.5 | 96.8 | 809.4 | 2092 | 279.9 | 70.7 | 52.2 |
| MEAN | 1.29 | 1.44 | 1.25 | 1.23 | 1.27 | 1.27 | 3.23 | 26.1 | 69.7 | 9.03 | 2.28 | 1.74 |
| MAX | 2.1 | 1.7 | 1.3 | 1.3 | 1.3 | 1.4 | 8.6 | 69 | 113 | 23 | 4.4 | 3.5 |
| MIN | 1.1 | 1.1 | 1.1 | 1.0 | 1.2 | 1.2 | 1.2 | 6.5 | 25 | 3.0 | 1.7 | 1.3 |
| AC-FT | 80 | 86 | 77 | 75 | 73 | 78 | 192 | 1610 | 4150 | 555 | 140 | 104 |

CAL YR 1979 TOTAL 4043.63 MEAN 11.1 MAX 110 MIN .52 AC-FT 8020
WTR YR 1980 TOTAL 3637.40 MEAN 9.94 MAX 113 MIN 1.0 AC-FT 7210

## 09067000 BEAVER CREEK AT AVON, CO

LOCATION.--Lat 39°37'47", long 106°31'20", in NE¼SW¼ sec.12, T.5 S., R.82 W., Eagle County, Hydrologic Unit 14010003, on left bank at Avon, 550 ft (170 m) upstream from U.S. Highways 6 and 24, and 700 ft (210 m) upstream from mouth.

DRAINAGE AREA.--15.7 mi² (40.7 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to December 1911, January 1912 to September 1914 (fragmentary), May 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,453 ft (2,272 m), from topographic map. Prior to May 1, 1974, nonrecording gage near present site at different datum.

REMARKS.--Records fair except those for winter period and period of no gage-height record, which are poor. Diversions above station for irrigation above and below station. Slight natural regulation by several small lakes in headwaters.

AVERAGE DISCHARGE.--6 years (water years 1975-80) 11.5 ft³/s (0.326 m³/s) 8,330 acre-ft/yr (10.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 214 ft³/s (6.06 m³/s) June 13, 1978, gage height, 2.53 ft (0.771 m); minimum daily, 0.55 ft³/s (0.016 m³/s) Sept. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 69 ft³/s (2.52 m³/s) at 2100 June 12, gage height, 1.95 ft (0.594 m), only peak above base of 80 ft³/s (2.3 m³/s); minimum daily, 1.6 ft³/s (0.045 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.7 | 2.1 | 2.2 | 2.7 | 2.7 | 2.7 | 3.0 | 12 | 42 | 44 | 8.9 | 3.9 |
| 2 | 3.5 | 2.3 | 2.7 | 2.7 | 2.6 | 2.6 | 3.3 | 11 | 44 | 45 | 8.5 | 3.4 |
| 3 | 3.7 | 2.2 | 2.8 | 2.7 | 2.6 | 2.5 | 3.0 | 12 | 47 | 41 | 7.8 | 3.0 |
| 4 | 3.6 | 2.1 | 2.9 | 2.7 | 2.8 | 2.8 | 3.0 | 13 | 50 | 35 | 7.1 | 2.7 |
| 5 | 3.4 | 2.1 | 3.0 | 2.7 | 2.9 | 2.6 | 3.3 | 14 | 53 | 31 | 6.5 | 2.8 |
| 6 | 3.3 | 2.0 | 3.2 | 2.7 | 2.8 | 2.4 | 3.0 | 16 | 57 | 28 | 6.0 | 2.6 |
| 7 | 3.2 | 1.8 | 3.5 | 2.7 | 2.7 | 2.7 | 3.3 | 17 | 55 | 27 | 5.7 | 2.1 |
| 8 | 3.1 | 1.9 | 3.5 | 2.6 | 2.6 | 2.6 | 4.5 | 19 | 55 | 28 | 5.5 | 3.8 |
| 9 | 3.1 | 1.8 | 3.2 | 2.5 | 2.6 | 2.5 | 3.6 | 18 | 59 | 25 | 5.4 | 6.4 |
| 10 | 3.0 | 1.9 | 2.8 | 2.1 | 2.5 | 2.3 | 3.6 | 19 | 67 | 24 | 5.2 | 6.7 |
| 11 | 2.7 | 2.0 | 2.6 | 1.6 | 2.4 | 2.3 | 3.3 | 20 | 72 | 22 | 4.8 | 8.1 |
| 12 | 2.6 | 2.1 | 2.5 | 2.5 | 2.3 | 2.4 | 3.9 | 21 | 77 | 22 | 4.2 | 6.6 |
| 13 | 2.4 | 2.2 | 2.3 | 2.9 | 2.5 | 2.2 | 3.9 | 19 | 75 | 21 | 4.1 | 5.7 |
| 14 | 2.3 | 1.9 | 2.6 | 3.2 | 2.3 | 2.3 | 3.6 | 17 | 76 | 20 | 3.9 | 5.3 |
| 15 | 2.3 | 1.9 | 2.7 | 3.2 | 2.4 | 2.5 | 5.1 | 16 | 69 | 18 | 7.8 | 4.9 |
| 16 | 2.4 | 2.1 | 2.6 | 2.9 | 2.6 | 2.2 | 6.0 | 16 | 69 | 17 | 7.9 | 4.5 |
| 17 | 2.3 | 2.3 | 2.6 | 2.7 | 2.8 | 2.5 | 6.4 | 19 | 67 | 16 | 5.8 | 3.8 |
| 18 | 2.4 | 2.4 | 2.5 | 2.5 | 3.3 | 2.6 | 6.8 | 18 | 63 | 15 | 4.5 | 2.2 |
| 19 | 2.4 | 2.4 | 2.5 | 2.5 | 3.7 | 2.4 | 8.0 | 18 | 66 | 15 | 3.8 | 2.0 |
| 20 | 2.7 | 2.3 | 2.9 | 2.4 | 3.6 | 2.4 | 7.6 | 20 | 64 | 14 | 3.5 | 2.7 |
| 21 | 3.5 | 2.2 | 3.0 | 2.3 | 2.9 | 2.4 | 8.8 | 25 | 60 | 14 | 3.3 | 2.5 |
| 22 | 3.0 | 2.1 | 3.1 | 2.1 | 2.9 | 2.6 | 12 | 34 | 57 | 13 | 3.3 | 3.2 |
| 23 | 3.0 | 1.9 | 3.0 | 1.9 | 2.9 | 2.6 | 12 | 39 | 54 | 12 | 3.7 | 2.2 |
| 24 | 2.8 | 2.0 | 2.9 | 2.3 | 2.7 | 2.6 | 11 | 38 | 56 | 12 | 4.8 | 1.8 |
| 25 | 2.7 | 2.2 | 3.0 | 3.0 | 2.6 | 2.6 | 10 | 34 | 52 | 11 | 6.1 | 1.9 |
| 26 | 2.8 | 2.2 | 3.0 | 2.8 | 2.5 | 2.6 | 11 | 34 | 52 | 11 | 6.7 | 1.5 |
| 27 | 2.7 | 2.1 | 2.8 | 2.8 | 2.6 | 3.0 | 11 | 34 | 50 | 10 | 5.4 | 1.5 |
| 28 | 2.3 | 1.9 | 2.8 | 2.8 | 2.6 | 2.6 | 13 | 36 | 46 | 9.9 | 4.1 | 1.5 |
| 29 | 2.5 | 1.8 | 2.6 | 2.8 | 2.8 | 2.6 | 12 | 36 | 42 | 9.3 | 3.3 | 1.4 |
| 30 | 2.4 | 2.0 | 2.3 | 2.7 | --- | 3.3 | 13 | 37 | 41 | 10 | 3.2 | 1.3 |
| 31 | 2.2 | --- | 2.5 | 2.2 | --- | 2.8 | --- | 40 | --- | 9.9 | 4.4 | --- |
| TOTAL | 88.0 | 62.1 | 86.6 | 80.2 | 79.2 | 79.2 | 202.0 | 722 | 1737 | 630.1 | 165.2 | 102.0 |
| MEAN | 2.84 | 2.07 | 2.79 | 2.59 | 2.73 | 2.55 | 6.73 | 23.3 | 57.9 | 20.3 | 5.33 | 3.40 |
| MAX | 3.7 | 2.4 | 3.5 | 3.2 | 3.7 | 3.3 | 13 | 40 | 77 | 45 | 8.9 | 8.1 |
| MIN | 2.2 | 1.8 | 2.2 | 1.6 | 2.3 | 2.2 | 3.0 | 11 | 41 | 9.3 | 3.2 | 1.3 |
| AC-FT | 175 | 123 | 172 | 159 | 157 | 157 | 401 | 1430 | 3450 | 1250 | 328 | 202 |

CAL YR 1979 TOTAL 5559.4 MEAN 15.2 MAX 109 MIN 1.6 AC-FT 11030
WTR YR 1980 TOTAL 4033.6 MEAN 11.0 MAX 77 MIN 1.3 AC-FT 8000

NOTE.--NO GAGE-HEIGT RECORD DEC. 20 TO MAR. 18.

## 09067000 BEAVER CREEK AT AVON, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1975 to current year.

INSTRUMENTATION.--Turbidity recorder since September 1974.

REMARKS.--Daily maximum and minimum turbidity data available in district office.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 02... | 1000 | 3.7 | 220 | 7.4 | 4.5 | 9.1 | 97 | 45 | 29 | 6.0 | 2.1 |
| NOV | | | | | | | | | | | |
| 06... | 0945 | 2.5 | 269 | 7.4 | .0 | 10.6 | 130 | 64 | 40 | 8.3 | 2.7 |
| DEC | | | | | | | | | | | |
| 20... | 1030 | 2.9 | 283 | 7.3 | .0 | 9.1 | 130 | 53 | 38 | 9.7 | 2.5 |
| JAN | | | | | | | | | | | |
| 29... | 0945 | 2.9 | 340 | 7.2 | .5 | 9.3 | 150 | 61 | 40 | 11 | 3.2 |
| MAR | | | | | | | | | | | |
| 18... | 1100 | 2.7 | 285 | 7.7 | .0 | 10.2 | 150 | 70 | 43 | 11 | 2.7 |
| APR | | | | | | | | | | | |
| 29... | 0930 | 9.5 | 330 | 7.3 | 4.0 | -- | 160 | 79 | 47 | 11 | 2.8 |
| JUN | | | | | | | | | | | |
| 03... | 1000 | 45 | 115 | 7.0 | 5.0 | 9.2 | 51 | 16 | 14 | 4.0 | 1.4 |
| 17... | 1000 | 70 | 55 | 6.9 | 6.0 | 9.4 | 25 | 0 | 6.8 | 2.0 | 1.2 |
| JUL | | | | | | | | | | | |
| 15... | 1000 | 19 | 80 | 6.8 | 9.5 | 8.2 | 36 | 8 | 10 | 2.7 | 1.5 |
| SEP | | | | | | | | | | | |
| 03... | 1045 | 7.0 | 175 | 7.3 | 8.0 | 8.4 | 80 | 32 | 23 | 5.4 | 1.3 |

| DATE | SODIUM AD-SORP-TION RATIO | BICAR-BONATE (MG/L AS HCO3) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 02... | .1 | -- | 52 | 51 | .5 | 130 | .18 | 1.33 | .00 | .030 |
| NOV | | | | | | | | | | |
| 06... | .1 | 85 | 70 | 65 | .9 | 179 | .24 | 1.25 | .03 | .010 |
| DEC | | | | | | | | | | |
| 20... | .1 | 100 | 82 | 61 | .7 | 181 | .25 | 1.46 | .15 | .020 |
| JAN | | | | | | | | | | |
| 29... | .1 | -- | 84 | 64 | .6 | 178 | .24 | 1.40 | .08 | .000 |
| MAR | | | | | | | | | | |
| 18... | .1 | -- | 83 | 70 | .8 | 202 | .27 | 1.47 | .10 | .120 |
| APR | | | | | | | | | | |
| 29... | .1 | -- | 84 | 71 | 1.6 | 214 | .29 | 5.51 | .58 | -- |
| JUN | | | | | | | | | | |
| 03... | .1 | -- | 35 | 20 | 2.5 | 80 | .11 | 9.72 | .09 | .000 |
| 17... | .1 | -- | 33 | 6.3 | .6 | 40 | .05 | 7.62 | .10 | -- |
| JUL | | | | | | | | | | |
| 15... | .1 | -- | 28 | 12 | .3 | 63 | .09 | 3.23 | .00 | .000 |
| SEP | | | | | | | | | | |
| 03... | .1 | -- | 48 | 31 | .8 | 112 | .15 | 2.12 | .00 | -- |

## 09069000 EAGLE RIVER AT GYPSUM, CO

LOCATION.--Lat 39°39'00", long 106°57'06", Eagle County, Hydrologic Unit 14010003, at bridge at Gypsum, about 400 ft (120 m) upstream from Gypsum Creek, about 520 ft (160 m) upstream from bridge on U.S. Highways 6 and 24, and about 550 ft (170 m) upstream from gaging station.

DRAINAGE AREA.--944 mi² (2,445 km²), at gaging station.

PERIOD OF RECORD.--April 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1947 to current year.
WATER TEMPERATURE: April 1949 to current year.

REMARKS.--Records of discharge are given for Eagle River below Gypsum (station 09070000).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,850 micromhos Aug. 6, 1949; minimum daily, 130 micromhos June 9, 10, 1976.
WATER TEMPERATURES: Maximum, 24°C Aug. 24, 1949; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,150 micromhos Oct. 2, Dec. 20; minimum daily, 160 micromhos June 12.
WATER TEMPERATURES: Maximum daily, 22.0°C Aug. 7; minimum daily, freezing point on many days during November to February.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | NITRO-GEN, DIS-SOLVED (MG/L AS N) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>02... | 1230 | 201 | 1150 | 8.1 | 11.5 | 9.8 | -- | 390 | 240 | 120 | 21 |
| NOV<br>06... | 1300 | 238 | 905 | 8.0 | 4.0 | 10.2 | -- | 370 | 220 | 110 | 22 |
| DEC<br>20... | 1300 | 208 | 1150 | 7.8 | .0 | 10.3 | -- | 390 | 240 | 120 | 23 |
| JAN<br>29... | 1300 | 197 | 1100 | 7.8 | .0 | 10.4 | .75 | 340 | 200 | 100 | 21 |
| MAR<br>18... | 1415 | 193 | 980 | 8.1 | 4.5 | 10.8 | .90 | -- | -- | -- | -- |
| JUN<br>17... | 1300 | 2700 | 170 | 7.6 | 10.0 | 8.8 | .49 | -- | -- | -- | -- |

| DATE | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>02... | 55 | 1.2 | 3.2 | 150 | 260 | 79 | .2 | 7.9 | 637 | 346 |
| NOV<br>06... | 57 | 1.3 | 2.8 | 150 | 210 | 76 | .1 | 8.2 | 577 | 371 |
| DEC<br>20... | 62 | 1.4 | 3.0 | 150 | 240 | 110 | .2 | 9.9 | 661 | 371 |
| JAN<br>29... | 64 | 1.5 | 2.7 | 140 | 210 | 91 | .1 | 9.6 | 585 | 311 |
| MAR<br>18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN<br>17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

## 09069000 EAGLE RIVER AT GYPSUM, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>02... | .87 | -- | .04 | -- | -- | -- | -- | .000 | <10 | 20 |
| NOV<br>06... | .78 | -- | .17 | -- | -- | -- | -- | .130 | 90 | 40 |
| DEC<br>20... | .90 | -- | .69 | -- | -- | -- | -- | .070 | 100 | 30 |
| JAN<br>29... | .80 | .47 | .46 | .30 | .29 | .77 | .090 | .080 | 350 | 70 |
| MAR<br>18... | -- | .41 | .41 | .52 | .49 | .93 | .100 | .060 | -- | -- |
| JUN<br>17... | -- | .11 | .10 | .35 | .39 | .46 | .020 | .010 | -- | -- |

| DATE | TIME | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DIS-SOLVED (UG/L AS AS) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | COPPER, DIS-SOLVED (UG/L AS CU) |
|---|---|---|---|---|---|---|---|---|---|
| JAN<br>29... | 1300 | 1 | 1 | 0 | <1 | 4 | 5 | 2 | 1 |
| MAR<br>18... | 1415 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 7 |
| JUN<br>17... | 1300 | 1 | 1 | 0 | 2 | 0 | 3 | 5 | 1 |

| DATE | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | LEAD, DIS-SOLVED (UG/L AS PB) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, TOTAL (UG/L AS SE) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | ZINC, DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|
| JAN<br>29... | 2 | 0 | .0 | .0 | 1 | 1 | 60 | 60 |
| MAR<br>18... | 10 | 0 | .1 | .0 | 1 | 1 | 70 | 30 |
| JUN<br>17... | 2 | 0 | .2 | .0 | 0 | 0 | 30 | 20 |

09069000 EAGLE RIVER AT GYPSUM, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 680 | 950 | 725 | 900 | 950 | 850 | 850 | 420 | 220 | 220 | 600 | --- |
| 2 | 1050 | 1000 | 725 | 825 | 925 | 850 | 850 | 480 | 220 | 240 | 600 | --- |
| 3 | 1000 | 1000 | 850 | 850 | 900 | 850 | 800 | 450 | 200 | 240 | 600 | --- |
| 4 | 975 | 950 | 800 | 850 | 900 | 800 | 850 | 450 | 200 | 240 | 590 | --- |
| 5 | 1000 | 950 | 800 | 900 | 825 | 800 | 900 | 340 | 180 | 280 | 600 | --- |
| 6 | 900 | 850 | 800 | 850 | 800 | 800 | 900 | 330 | 180 | 300 | 600 | --- |
| 7 | 1000 | 850 | 850 | 850 | 850 | 800 | 800 | 300 | 180 | 310 | 625 | --- |
| 8 | 1000 | 850 | 725 | 850 | 850 | 800 | 850 | 300 | 180 | 300 | 650 | 800 |
| 9 | 1000 | 825 | 450 | 800 | 900 | 750 | 850 | 320 | 180 | 310 | 650 | 850 |
| 10 | 1000 | 850 | 460 | --- | 950 | 800 | 900 | 320 | 180 | 310 | 740 | 750 |
| 11 | 1000 | 850 | 460 | 850 | 950 | 750 | 825 | 300 | 170 | 310 | 725 | 700 |
| 12 | 1000 | 850 | 460 | 850 | 900 | 650 | 900 | 280 | 160 | 320 | 725 | 700 |
| 13 | 1000 | 850 | 80 | 800 | 900 | 850 | 900 | 320 | 170 | 320 | 725 | 700 |
| 14 | 1000 | 900 | 850 | 800 | 850 | 800 | 850 | 280 | 170 | 360 | 700 | 700 |
| 15 | 975 | 850 | 950 | 800 | 850 | 800 | 825 | 360 | 180 | 360 | 750 | 725 |
| 16 | 1000 | 850 | 850 | 725 | 800 | 750 | 850 | 360 | 180 | 420 | 570 | 750 |
| 17 | 950 | 900 | 850 | 800 | 800 | 750 | 800 | 380 | 180 | 400 | 625 | 775 |
| 18 | 950 | 900 | 850 | 800 | 800 | 800 | 825 | 400 | 180 | 420 | 600 | 800 |
| 19 | 950 | 850 | 850 | 850 | 800 | 900 | 750 | 370 | 200 | 430 | 600 | 800 |
| 20 | 950 | 850 | 900 | 850 | 800 | 895 | 650 | 340 | 200 | 460 | 580 | 800 |
| 21 | 900 | 850 | 900 | 850 | 850 | 900 | 580 | 300 | 180 | --- | 750 | 850 |
| 22 | 900 | 850 | 825 | 900 | 850 | 850 | 480 | 240 | 200 | --- | 600 | 850 |
| 23 | 900 | 850 | 750 | 950 | 850 | 850 | 440 | 200 | 200 | 520 | 590 | 850 |
| 24 | 900 | 850 | 300 | 1000 | 850 | 850 | 440 | 180 | 190 | 540 | 550 | 800 |
| 25 | 900 | 800 | 850 | 850 | 875 | 850 | 480 | 200 | 200 | 560 | 575 | 900 |
| 26 | 900 | 850 | 850 | 850 | 900 | 850 | 480 | 240 | 180 | 560 | 675 | 900 |
| 27 | 900 | 850 | 850 | 750 | 900 | 850 | 480 | 240 | 200 | 560 | 700 | 900 |
| 28 | 900 | 850 | 850 | 750 | 875 | 850 | --- | 220 | 220 | 600 | 750 | 900 |
| 29 | 900 | 950 | 850 | 750 | 850 | 850 | 490 | 240 | 240 | 600 | 700 | 900 |
| 30 | 900 | 480 | 300 | 700 | --- | 850 | 480 | 240 | 240 | 580 | 850 | 900 |
| 31 | 900 | --- | 850 | 900 | --- | 850 | --- | 240 | --- | 570 | 800 | --- |

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13.0 | 3.0 | .0 | .0 | .0 | 4.0 | 8.0 | 9.0 | 9.0 | 13.0 | 20.0 | --- |
| 2 | 13.0 | 4.0 | .0 | .0 | 1.0 | 3.0 | 8.0 | 12.0 | 10.0 | 15.0 | 19.0 | --- |
| 3 | 14.0 | 4.0 | .0 | .0 | 1.0 | 4.0 | 9.0 | 10.0 | 11.0 | 15.0 | 19.0 | --- |
| 4 | 13.0 | 4.0 | .0 | .0 | 1.0 | 7.0 | 8.0 | 8.0 | 11.0 | 16.0 | 19.0 | --- |
| 5 | 14.0 | 5.0 | .0 | .5 | 1.0 | 7.0 | 9.0 | 10.0 | 11.0 | 16.0 | 19.0 | --- |
| 6 | 8.0 | 5.0 | .0 | .0 | 1.0 | 6.0 | 9.0 | 10.0 | 10.0 | 17.0 | 19.0 | --- |
| 7 | 9.0 | 5.0 | .0 | .0 | 1.0 | 6.0 | 7.0 | 10.0 | 10.0 | 17.0 | 22.0 | --- |
| 8 | 14.0 | 5.0 | .0 | .0 | 1.0 | 6.0 | 8.0 | 9.0 | 9.0 | 17.0 | 20.0 | 16.0 |
| 9 | 14.0 | 5.0 | .0 | .0 | .0 | 8.0 | 8.0 | 10.0 | 11.0 | 17.0 | 20.0 | 16.0 |
| 10 | 13.0 | 5.0 | .0 | --- | .0 | 7.0 | 10.0 | 10.0 | 11.0 | 16.0 | 21.0 | 15.0 |
| 11 | 13.0 | 5.0 | .0 | .0 | .0 | 8.0 | 8.0 | 9.0 | 11.0 | 16.0 | 20.0 | 15.0 |
| 12 | 12.0 | 4.0 | .0 | .0 | .0 | 6.0 | 9.0 | 8.0 | 11.0 | 17.0 | 20.0 | 16.0 |
| 13 | 13.0 | 3.0 | .0 | .0 | .0 | 7.0 | 11.0 | 10.0 | 11.0 | 17.0 | 20.0 | 16.0 |
| 14 | 13.0 | 3.0 | .0 | 1.0 | 1.0 | 8.0 | 11.0 | 10.0 | 11.0 | 18.0 | 20.0 | 16.0 |
| 15 | 12.0 | 2.0 | .0 | .0 | 1.0 | 6.0 | 11.0 | 12.0 | 11.0 | 18.0 | 18.0 | 16.0 |
| 16 | 13.0 | 2.0 | .0 | 1.0 | 1.0 | 4.0 | 13.0 | 12.0 | 11.0 | 20.0 | 16.0 | 15.0 |
| 17 | 12.0 | .0 | .0 | 1.0 | 2.0 | 5.0 | 10.0 | 12.0 | 11.0 | 20.0 | 18.0 | 16.0 |
| 18 | 12.0 | .0 | .0 | 1.0 | 2.0 | 7.0 | 11.0 | 13.0 | 10.0 | 20.0 | 18.0 | 16.0 |
| 19 | 13.0 | 1.0 | .0 | 2.0 | 4.0 | 8.0 | 8.0 | 13.0 | 12.0 | 19.0 | 18.0 | 17.0 |
| 20 | 12.0 | 3.0 | .0 | 2.0 | 3.0 | 4.0 | 7.0 | 13.0 | 12.0 | 19.0 | 18.0 | 16.0 |
| 21 | 10.0 | 1.0 | .0 | 1.0 | 3.0 | 8.0 | 12.0 | 14.0 | 11.0 | --- | 18.0 | 15.0 |
| 22 | 8.0 | .0 | .0 | .0 | 3.0 | 7.0 | 11.0 | 12.0 | 13.0 | --- | 18.0 | 15.0 |
| 23 | 9.0 | 1.0 | .0 | .0 | 4.0 | 6.0 | 10.0 | 10.0 | 13.0 | 18.0 | 17.0 | 14.0 |
| 24 | 9.0 | 1.0 | .0 | .0 | 4.0 | 9.0 | 8.0 | 8.0 | 13.0 | 17.0 | 16.0 | 14.0 |
| 25 | 9.0 | 1.0 | .0 | 1.0 | 3.0 | 8.0 | 4.0 | 9.0 | 13.0 | 18.0 | 16.0 | 16.0 |
| 26 | 9.0 | .0 | .0 | 1.0 | 3.0 | 8.0 | 10.0 | 9.0 | 13.0 | 18.0 | 18.0 | 16.0 |
| 27 | 9.0 | .0 | .0 | 1.0 | 6.0 | 8.0 | 12.0 | 9.0 | 13.0 | 20.0 | 18.0 | 15.0 |
| 28 | 9.0 | .0 | .0 | .0 | 6.0 | 8.0 | --- | 11.0 | 14.0 | 20.0 | 18.0 | 15.0 |
| 29 | 8.0 | .0 | .0 | .0 | 5.0 | 7.0 | 11.0 | 10.0 | 10.0 | 20.0 | 17.0 | 15.0 |
| 30 | 4.0 | .0 | .0 | .0 | --- | 8.0 | 12.0 | 10.0 | 15.0 | 20.0 | 15.0 | 15.0 |
| 31 | 4.0 | --- | .0 | .0 | --- | 8.0 | --- | 10.0 | --- | 21.0 | 16.0 | --- |

## 09070000 EAGLE RIVER BELOW GYPSUM, CO

LOCATION.--Lat 39°38'58", long 106°57'11", in SW¼NW¼ sec.5, T.5 S., R.85 W., Eagle County, Hydrologic Unit 14010003, on right bank 30 ft (9 m) downstream from bridge on U.S. Highways 6 and 24 at Gypsum and 150 ft (46 m) downstream from Gypsum Creek.

DRAINAGE AREA.--944 mi² (2,445 km²).

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,275 ft (1,913 m), from topographic map.

REMARKS.--Records good except for periods of no gage-height record, which are poor. Transmountain diversions above station (see elsewhere in this report). Transbasin diversions above station from Robinson Reservoir, capacity, 2,520 acre-ft (3.11 hm³) to Tenmile Creek for mining development. Many small diversions for irrigation of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--34 years, 562 ft³/s (15.92 m³/s), 407,200 acre-ft/yr (502 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,580 ft³/s (186 m³/s) June 11, 1952, gage height, 9.15 ft (2.789 m); maximum gage height, 9.17 ft (2.795 m) June 29, 1957; minimum daily discharge, 110 ft³/s (3.12 m³/s) Feb. 21, 1955, Feb. 3, 1956, Dec. 26, 27, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,020 ft³/s (114 m³/s) at 0700 June 12, gage height, 7.48 ft (2.280 m), only peak above base of 3,500 ft³/s (99 m³/s); minimum daily, 135 ft³/s (3.82 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 203 | 202 | 174 | 170 | 170 | 260 | 186 | 611 | 1830 | 1680 | 345 | 229 |
| 2 | 198 | 210 | 183 | 200 | 200 | 250 | 193 | 580 | 1840 | 1730 | 326 | 227 |
| 3 | 193 | 219 | 241 | 200 | 220 | 250 | 183 | 580 | 1940 | 1700 | 322 | 224 |
| 4 | 190 | 227 | 263 | 190 | 220 | 240 | 185 | 660 | 2260 | 1490 | 313 | 222 |
| 5 | 194 | 251 | 257 | 210 | 210 | 240 | 195 | 760 | 2610 | 1300 | 295 | 210 |
| 6 | 192 | 246 | 249 | 190 | 200 | 240 | 208 | 840 | 2830 | 1150 | 280 | 194 |
| 7 | 190 | 247 | 242 | 190 | 200 | 240 | 201 | 920 | 2770 | 1080 | 272 | 197 |
| 8 | 191 | 254 | 263 | 190 | 190 | 250 | 181 | 960 | 2680 | 1080 | 264 | 204 |
| 9 | 190 | 250 | 249 | 190 | 180 | 240 | 191 | 961 | 2920 | 1040 | 247 | 269 |
| 10 | 192 | 248 | 232 | 190 | 140 | 230 | 207 | 902 | 3220 | 1000 | 236 | 292 |
| 11 | 191 | 246 | 244 | 180 | 180 | 235 | 203 | 924 | 3570 | 940 | 229 | 334 |
| 12 | 192 | 244 | 210 | 135 | 190 | 240 | 195 | 1010 | 3680 | 1000 | 221 | 356 |
| 13 | 193 | 227 | 170 | 220 | 190 | 220 | 190 | 830 | 3560 | 900 | 213 | 316 |
| 14 | 200 | 221 | 163 | 250 | 220 | 210 | 195 | 731 | 3320 | 820 | 211 | 270 |
| 15 | 203 | 225 | 181 | 280 | 220 | 220 | 218 | 683 | 3070 | 760 | 258 | 240 |
| 16 | 194 | 224 | 233 | 280 | 240 | 230 | 239 | 653 | 2770 | 692 | 367 | 220 |
| 17 | 197 | 224 | 251 | 230 | 230 | 210 | 247 | 729 | 2620 | 645 | 322 | 210 |
| 18 | 204 | 234 | 226 | 220 | 220 | 200 | 268 | 657 | 2590 | 616 | 280 | 200 |
| 19 | 208 | 241 | 216 | 210 | 240 | 207 | 313 | 676 | 2650 | 571 | 249 | 195 |
| 20 | 204 | 248 | 210 | 200 | 240 | 204 | 351 | 775 | 2500 | 525 | 229 | 190 |
| 21 | 245 | 239 | 215 | 195 | 220 | 204 | 398 | 976 | 2380 | 490 | 221 | 185 |
| 22 | 236 | 222 | 220 | 195 | 215 | 213 | 471 | 1450 | 2290 | 480 | 218 | 180 |
| 23 | 225 | 202 | 220 | 180 | 230 | 208 | 523 | 2090 | 2280 | 460 | 214 | 175 |
| 24 | 238 | 213 | 210 | 160 | 220 | 199 | 449 | 2360 | 2290 | 450 | 228 | 175 |
| 25 | 242 | 243 | 200 | 210 | 210 | 206 | 440 | 2000 | 2180 | 430 | 249 | 170 |
| 26 | 237 | 234 | 210 | 220 | 200 | 200 | 481 | 1740 | 2220 | 420 | 297 | 170 |
| 27 | 241 | 228 | 200 | 210 | 220 | 189 | 520 | 1560 | 2100 | 400 | 279 | 170 |
| 28 | 248 | 200 | 200 | 200 | 230 | 192 | 580 | 1620 | 1970 | 390 | 239 | 160 |
| 29 | 237 | 168 | 190 | 200 | 240 | 192 | 620 | 1850 | 1680 | 400 | 221 | 160 |
| 30 | 237 | 167 | 150 | 200 | --- | 187 | 627 | 1620 | 1630 | 390 | 216 | 160 |
| 31 | 223 | --- | 150 | 190 | --- | 193 | --- | 1730 | --- | 371 | 225 | --- |
| TOTAL | 6528 | 6804 | 6622 | 6285 | 6085 | 6799 | 9458 | 34438 | 76250 | 25400 | 8086 | 6504 |
| MEAN | 211 | 227 | 214 | 203 | 210 | 219 | 315 | 1111 | 2542 | 819 | 261 | 217 |
| MAX | 248 | 254 | 263 | 280 | 240 | 260 | 627 | 2360 | 3680 | 1730 | 367 | 356 |
| MIN | 190 | 167 | 150 | 135 | 140 | 187 | 181 | 580 | 1630 | 371 | 211 | 160 |
| AC-FT | 12950 | 13500 | 13130 | 12470 | 12070 | 13490 | 18760 | 68310 | 151200 | 50380 | 16040 | 12900 |

CAL YR 1979 TOTAL 254608 MEAN 698 MAX 4500 MIN 150 AC-FT 505000
WTR YR 1980 TOTAL 199259 MEAN 544 MAX 3680 MIN 135 AC-FT 395200

NOTE.--NO GAGE-HEIGHT RECORD DEC. 20 TO MAR. 18.

## 09070500 COLORADO RIVER NEAR DOTSERO, CO

LOCATION.--Lat 39°38'40", long 107°04'40", in sec.6, T.5 S., R.86 W., Eagle County, Hydrologic Unit 14010001, on left bank about 500 ft (150 m) south of U.S. Highways 6 and 24, 1.5 mi (2.4 km) west of Dotsero, and 1.5 mi (2.4 km) downstream from Eagle River.

DRAINAGE AREA.--4,394 mi² (11,380 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,130 ft (1,868 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, diversions for irrigation of 68,000 acres (275 km²) above station, and return flow from irrigated areas.

COOPERATION.--Gage-height record collected in cooperation with the Public Service Co. of Colorado.

AVERAGE DISCHARGE.--40 years, 2,086 ft³/s (59.08 m³/s), 1,511,000 acre-ft/yr (1,860 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,100 ft³/s (541 m³/s) June 8, 1952, gage height, 11.56 ft (3.523 m); minimum daily, 350 ft³/s (9.91 m³/s) Jan. 5, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,700 ft³/s (303 m³/s) at 1100 June 12, gage height, 8.59 ft (2.618 m); minimum daily, 860 ft³/s (24.4 m³/s) Dec. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1280 | 1170 | 960 | 1070 | 948 | 969 | 1090 | 3640 | 7110 | 3920 | 1500 | 1350 |
| 2 | 1280 | 1170 | 1100 | 1060 | 1070 | 966 | 1090 | 3550 | 6790 | 4150 | 1460 | 1260 |
| 3 | 1250 | 1090 | 1220 | 1060 | 1020 | 985 | 1090 | 3550 | 6820 | 4260 | 1410 | 1220 |
| 4 | 1260 | 1090 | 1250 | 1090 | 996 | 1000 | 1070 | 3780 | 7150 | 4030 | 1370 | 1400 |
| 5 | 1250 | 1110 | 1250 | 1060 | 945 | 1010 | 1080 | 4120 | 7850 | 3610 | 1320 | 1430 |
| 6 | 1250 | 1130 | 1220 | 1040 | 1060 | 1020 | 1110 | 4650 | 8630 | 3170 | 1300 | 1400 |
| 7 | 1250 | 1120 | 1270 | 980 | 958 | 1040 | 1100 | 5130 | 8880 | 2920 | 1280 | 1270 |
| 8 | 1260 | 1150 | 1220 | 1010 | 946 | 1010 | 1040 | 5690 | 8720 | 2870 | 1350 | 1190 |
| 9 | 1250 | 1150 | 1190 | 1060 | 905 | 990 | 1040 | 5760 | 8900 | 2800 | 1330 | 1340 |
| 10 | 1240 | 1150 | 1180 | 1030 | 867 | 977 | 1090 | 5550 | 9450 | 2650 | 1300 | 1510 |
| 11 | 1250 | 1140 | 1020 | 1040 | 891 | 971 | 1090 | 5510 | 9900 | 2580 | 1290 | 1540 |
| 12 | 1250 | 1140 | 870 | 1090 | 973 | 979 | 1060 | 5800 | 10100 | 2590 | 1260 | 1580 |
| 13 | 1250 | 1110 | 860 | 1140 | 1030 | 946 | 1060 | 5520 | 9910 | 2650 | 1310 | 1530 |
| 14 | 1260 | 1090 | 940 | 1170 | 988 | 960 | 1060 | 5070 | 9460 | 2590 | 1420 | 1450 |
| 15 | 1260 | 1090 | 1050 | 1090 | 1050 | 997 | 1110 | 4650 | 8680 | 2450 | 1530 | 1330 |
| 16 | 1260 | 1090 | 1110 | 1080 | 1050 | 1020 | 1170 | 4460 | 7880 | 2290 | 1730 | 1320 |
| 17 | 1270 | 1100 | 1110 | 1070 | 1000 | 954 | 1220 | 4730 | 7340 | 2150 | 1720 | 1380 |
| 18 | 1180 | 1130 | 1050 | 1050 | 1030 | 938 | 1280 | 4820 | 6780 | 2020 | 1640 | 1360 |
| 19 | 1120 | 1160 | 1010 | 1020 | 1120 | 992 | 1420 | 4560 | 6630 | 1960 | 1500 | 1340 |
| 20 | 1110 | 1170 | 1030 | 980 | 1090 | 1010 | 1570 | 4700 | 6130 | 1900 | 1390 | 1360 |
| 21 | 1210 | 1150 | 1100 | 950 | 1030 | 1040 | 1780 | 5190 | 5760 | 1860 | 1350 | 1380 |
| 22 | 1270 | 1080 | 1150 | 910 | 1020 | 1080 | 2160 | 6240 | 5480 | 1800 | 1380 | 1330 |
| 23 | 1270 | 1150 | 1100 | 900 | 1000 | 1070 | 2430 | 7870 | 5440 | 1760 | 1440 | 1360 |
| 24 | 1270 | 1220 | 1060 | 935 | 975 | 1050 | 2560 | 8910 | 5540 | 1760 | 1500 | 1330 |
| 25 | 1350 | 1230 | 1050 | 1040 | 922 | 1070 | 2590 | 8670 | 5460 | 1780 | 1520 | 1270 |
| 26 | 1280 | 1170 | 1080 | 974 | 922 | 1080 | 2730 | 8310 | 5340 | 1780 | 1610 | 1230 |
| 27 | 1260 | 967 | 1060 | 950 | 953 | 1090 | 2790 | 7540 | 5160 | 1740 | 1630 | 1230 |
| 28 | 1270 | 927 | 1020 | 934 | 963 | 1090 | 2860 | 7090 | 4790 | 1670 | 1500 | 1220 |
| 29 | 1270 | 910 | 1010 | 938 | 994 | 1100 | 3110 | 7250 | 4070 | 1580 | 1390 | 1150 |
| 30 | 1260 | 880 | 970 | 978 | --- | 1100 | 3500 | 6920 | 3880 | 1540 | 1340 | 1160 |
| 31 | 1240 | --- | 990 | 935 | --- | 1110 | --- | 6920 | --- | 1520 | 1340 | --- |
| TOTAL | 38730 | 33234 | 33500 | 31634 | 28716 | 31614 | 49350 | 176150 | 214030 | 76350 | 44410 | 40220 |
| MEAN | 1249 | 1108 | 1081 | 1020 | 990 | 1020 | 1645 | 5682 | 7134 | 2463 | 1433 | 1341 |
| MAX | 1350 | 1230 | 1270 | 1170 | 1120 | 1110 | 3500 | 8910 | 10100 | 4260 | 1730 | 1580 |
| MIN | 1110 | 880 | 860 | 900 | 867 | 938 | 1040 | 3550 | 3880 | 1520 | 1260 | 1150 |
| AC-FT | 76820 | 65920 | 66450 | 62750 | 56960 | 62710 | 97890 | 349400 | 424500 | 151400 | 88090 | 79780 |

CAL YR 1979 TOTAL 852750 MEAN 2336 MAX 11400 MIN 560 AC-FT 1691000
WTR YR 1980 TOTAL 797938 MEAN 2180 MAX 10100 MIN 860 AC-FT 1583000

## 09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Partial record station May 1962 to February 1980, February to September 1980.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February to September 1980.
WATER TEMPERATURE: February to September 1980.

INSTRUMENTATION.--Water-quality monitor since February 1980.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

COOPERATION.--Additional chemical-quality data are furnished by Water and Power Resources Service (noted by an asterisk in the water year heading).

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 922 micromhos Feb. 29; minimum recorded, 168 micromhos June 12.
WATER TEMPERATURE: Maximum, 21.0°C Aug. 9; minimum, 0.5°C February 15.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | OXYGEN, DISSOLVED (MG/L) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | |
| 02... | 1530 | 1290 | 418 | 8.1 | 14.0 | 9.0 | 150 | 64 |

| DATE | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 02... | 45 | 9.3 | 22 | .8 | 2.1 | 87 | 85 | 25 | .3 |

| DATE | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | IRON, DISSOLVED (UG/L AS FE) | MANGANESE, DISSOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | |
| 02... | 8.2 | 249 | .34 | 867 | .00 | .000 | 20 | 10 |

## 09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980 *

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | |
| 22... | 1100 | 1010 | 469 | 8.2 | 1.5 | 170 | 70 | 51 | 10 | 28 |
| 29... | 1430 | 938 | 446 | 7.7 | 1.0 | 170 | 70 | 49 | 10 | 25 |
| FEB | | | | | | | | | | |
| 07... | 1000 | 936 | 436 | 7.8 | 1.0 | 160 | 62 | 48 | 9.8 | 25 |
| 14... | 1200 | 953 | 463 | 8.1 | 1.0 | 180 | 71 | 53 | 10 | 26 |
| 21... | 1300 | 1030 | 444 | 8.3 | 2.5 | 170 | 74 | 50 | 10 | 25 |
| 29... | 0930 | 994 | 439 | 8.2 | 2.0 | 180 | 78 | 53 | 11 | 26 |
| MAR | | | | | | | | | | |
| 06... | 1130 | 992 | 565 | 8.5 | 3.0 | 260 | 130 | 80 | 13 | 20 |
| 13... | 0800 | 980 | 478 | 8.1 | 2.0 | 180 | 76 | 53 | 11 | 28 |
| 18... | 1505 | 930 | 461 | 8.3 | 5.0 | 180 | 75 | 52 | 10 | 26 |
| 27... | 1130 | 1000 | 433 | 8.2 | 5.0 | 160 | 63 | 46 | 10 | 25 |
| APR | | | | | | | | | | |
| 01... | 1200 | 1080 | 428 | 8.2 | 5.0 | 160 | 64 | 46 | 9.8 | 25 |
| 08... | 1045 | 1000 | 440 | 8.4 | 5.0 | 160 | 63 | 47 | 10 | 26 |
| 17... | 0755 | 1220 | 464 | 7.2 | 7.0 | 180 | 76 | 52 | 12 | 26 |
| 25... | 1130 | 2850 | 398 | 8.1 | 7.5 | 160 | 61 | 43 | 11 | 21 |
| 29... | 1345 | 3340 | 354 | 7.9 | 10.0 | 140 | 50 | 40 | 10 | 16 |
| MAY | | | | | | | | | | |
| 08... | 1500 | 5870 | 289 | 7.8 | 10.0 | 120 | 41 | 36 | 7.7 | 10 |
| 13... | 1400 | 5520 | 270 | 7.7 | 3.5 | 120 | 34 | 34 | 7.2 | 9.2 |
| 23... | 1030 | 8330 | 221 | 8.0 | 11.5 | 98 | 24 | 29 | 5.7 | 5.8 |
| 30... | 1130 | 7010 | 210 | 7.7 | 8.5 | 89 | 22 | 26 | 5.6 | 6.7 |
| JUN | | | | | | | | | | |
| 03... | 1340 | 7050 | 204 | 7.2 | 10.5 | 88 | 24 | 26 | 5.5 | 6.4 |
| 13... | 1130 | 10200 | 178 | 7.9 | 9.0 | 77 | 19 | 23 | 4.3 | 4.1 |
| 17... | 1400 | 7510 | 198 | 8.2 | 11.5 | 80 | 23 | 24 | 4.8 | 5.3 |
| 25... | 1015 | 5930 | 216 | 7.8 | 12.5 | 90 | 28 | 27 | 5.5 | 7.1 |
| JUL | | | | | | | | | | |
| 03... | 1330 | 4710 | 293 | 8.0 | 15.5 | 120 | 34 | 34 | 7.0 | 12 |
| 11... | 1105 | 2520 | 353 | 7.8 | 17.5 | 150 | 54 | 44 | 8.9 | 16 |
| 15... | 1345 | 2460 | 382 | 7.8 | 17.5 | 160 | 62 | 47 | 9.4 | 16 |
| 25... | 1400 | 1780 | 447 | 8.0 | 16.0 | 180 | 69 | 53 | 10 | 20 |
| 31... | 1215 | 1550 | 435 | 8.1 | 21.0 | 170 | 65 | 52 | 9.8 | 21 |
| AUG | | | | | | | | | | |
| 07... | 1015 | 1280 | 499 | 8.2 | 18.0 | 200 | 83 | 59 | 11 | 25 |
| 13... | 1015 | 1290 | 459 | 8.2 | 17.5 | 180 | 80 | 54 | 10 | 23 |
| 22... | 1230 | 1360 | 441 | 8.1 | 17.0 | 170 | 73 | 50 | 10 | 23 |
| 29... | 1145 | 1410 | 414 | 8.2 | 16.0 | 160 | 64 | 48 | 9.3 | 21 |
| SEP | | | | | | | | | | |
| 03... | 1705 | 1190 | 513 | 8.3 | 17.0 | 190 | 84 | 58 | 11 | 26 |
| 11... | 1020 | 1460 | 477 | 8.0 | 14.0 | 180 | 81 | 56 | 10 | 23 |
| 18... | 1020 | 1310 | 475 | 8.2 | 12.5 | 180 | 87 | 55 | 10 | 25 |
| 25... | 1000 | 1210 | 459 | 8.2 | 11.0 | 190 | 91 | 57 | 11 | 28 |

## 09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | BICARBONATE (MG/L AS HCO3) | CARBONATE (MG/L AS CO3) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | |
| 22... | .9 | 2.7 | 124 | 0 | 102 | 89 | 35 | 279 | .38 | 761 |
| 29... | .8 | 2.3 | 118 | 0 | 97 | 77 | 33 | 266 | .36 | 674 |
| FEB | | | | | | | | | | |
| 07... | .9 | 2.7 | 120 | 0 | 98 | 79 | 30 | 278 | .38 | 703 |
| 14... | .9 | 2.7 | 127 | 0 | 104 | 80 | 34 | 294 | .40 | 756 |
| 21... | .9 | 2.7 | 115 | 1 | 97 | 83 | 30 | 289 | .39 | 804 |
| 29... | .9 | 2.3 | 123 | 0 | 101 | 84 | 31 | 291 | .40 | 781 |
| MAR | | | | | | | | | | |
| 06... | .6 | 2.3 | 152 | 0 | 125 | 142 | 25 | 389 | .53 | 1040 |
| 13... | .9 | 2.7 | 126 | 0 | 103 | 85 | 35 | 279 | .38 | 738 |
| 18... | .9 | 2.7 | 122 | 0 | 100 | 84 | 31 | 279 | .38 | 701 |
| 27... | .9 | 2.7 | 116 | 0 | 95 | 89 | 29 | 257 | .35 | 694 |
| APR | | | | | | | | | | |
| 01... | .9 | 2.3 | 112 | 0 | 92 | 79 | 25 | 259 | .35 | 755 |
| 08... | .9 | 2.7 | 120 | 0 | 98 | 85 | 27 | 220 | .30 | 594 |
| 17... | .8 | 2.7 | 129 | 0 | 106 | 95 | 28 | 306 | .42 | 1010 |
| 25... | .7 | 3.5 | 115 | 0 | 95 | 88 | 14 | 277 | .38 | 2130 |
| 29... | .6 | 3.5 | 114 | 0 | 93 | 70 | 12 | 238 | .32 | 2150 |
| MAY | | | | | | | | | | |
| 08... | .4 | 2.7 | 101 | 0 | 83 | 54 | 7.5 | 199 | .27 | 3150 |
| 13... | .4 | 2.3 | 97 | 0 | 80 | 48 | 7.5 | 180 | .24 | 2680 |
| 23... | .3 | 2.0 | 90 | 0 | 74 | 32 | 4.6 | 160 | .22 | 3600 |
| 30... | .3 | 1.6 | 81 | 0 | 67 | 29 | 5.3 | 135 | .18 | 2560 |
| JUN | | | | | | | | | | |
| 03... | .3 | 1.6 | 78 | 0 | 64 | 30 | 5.7 | 133 | .18 | 2530 |
| 13... | .0 | 1.0 | 70 | 0 | 58 | 25 | 3.5 | 129 | .18 | 3550 |
| 17... | .3 | 1.2 | 69 | 0 | 57 | 30 | 5.3 | 101 | .14 | 2050 |
| 25... | .3 | 1.6 | 75 | 0 | 62 | 35 | 6.0 | 140 | .19 | 2240 |
| JUL | | | | | | | | | | |
| 03... | .5 | 2.0 | 99 | 0 | 82 | 46 | 11 | 177 | .24 | 2250 |
| 11... | .6 | 2.3 | 112 | 0 | 92 | 65 | 16 | 219 | .30 | 1490 |
| 15... | .6 | 2.3 | 117 | 0 | 96 | 73 | 16 | 228 | .31 | 1510 |
| 25... | .7 | 2.3 | 131 | 0 | 107 | 87 | 21 | 283 | .38 | 1360 |
| 31... | .7 | 2.7 | 131 | 0 | 107 | 89 | 22 | 278 | .38 | 1160 |
| AUG | | | | | | | | | | |
| 07... | .8 | 2.7 | 137 | 0 | 113 | 99 | 28 | 308 | .42 | 1060 |
| 13... | .7 | 3.1 | 122 | 0 | 100 | 94 | 27 | 291 | .40 | 1010 |
| 22... | .8 | 2.7 | 117 | 0 | 96 | 88 | 24 | 278 | .38 | 1020 |
| 29... | .3 | 2.7 | 116 | 0 | 95 | 75 | 24 | 255 | .35 | 971 |
| SEP | | | | | | | | | | |
| 03... | .8 | 2.7 | 107 | 12 | 108 | 118 | 33 | 328 | .45 | 1050 |
| 11... | .7 | 2.7 | 125 | 0 | 103 | 99 | 31 | 312 | .42 | 1230 |
| 18... | .8 | 2.7 | 116 | 0 | 95 | 104 | 28 | 281 | .38 | 994 |
| 25... | .9 | 2.7 | 120 | 0 | 99 | 106 | 30 | 323 | .44 | 1060 |

### 09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | --- | 860 | 441 | 322 | 213 | 266 | 471 | 510 |
| 2 | | | | | --- | 786 | 450 | 331 | 214 | 275 | 451 | 520 |
| 3 | | | | | --- | 718 | 444 | 326 | 214 | 284 | 427 | 527 |
| 4 | | | | | --- | 648 | 447 | 325 | 204 | 293 | 434 | 520 |
| 5 | | | | | --- | 582 | 452 | 316 | 199 | 303 | 454 | 513 |
| 6 | | | | | --- | 598 | 458 | 298 | 193 | 312 | 500 | 506 |
| 7 | | | | | --- | 837 | 452 | 292 | 191 | 322 | 510 | 500 |
| 8 | | | | | --- | 741 | 448 | 292 | 197 | 331 | 520 | 490 |
| 9 | | | | | --- | 675 | 465 | 280 | 191 | 340 | 560 | 485 |
| 10 | | | | | --- | 630 | 473 | 283 | 184 | 350 | 580 | 478 |
| 11 | | | | | --- | 563 | 464 | 277 | 178 | 359 | 540 | 471 |
| 12 | | | | | --- | 487 | 456 | 269 | 170 | 360 | 500 | 464 |
| 13 | | | | | --- | 364 | 461 | 269 | 171 | 380 | 465 | 455 |
| 14 | | | | | 440 | 482 | 466 | 288 | 177 | 391 | 480 | 462 |
| 15 | | | | | 435 | 429 | 470 | 300 | 184 | 409 | 480 | 469 |
| 16 | | | | | 448 | 425 | 470 | 305 | 190 | 487 | 470 | 475 |
| 17 | | | | | 455 | 428 | 465 | 310 | 196 | 514 | 480 | 482 |
| 18 | | | | | 455 | 497 | 475 | 314 | 198 | 510 | 490 | 489 |
| 19 | | | | | 479 | 534 | 476 | 330 | 200 | 499 | 500 | 490 |
| 20 | | | | | 469 | 512 | 460 | 314 | 201 | 491 | 480 | 485 |
| 21 | | | | | 547 | 500 | 454 | 292 | 203 | 482 | 475 | 485 |
| 22 | | | | | 830 | 490 | 463 | 258 | 205 | 467 | 456 | 480 |
| 23 | | | | | 806 | 484 | 445 | 225 | 206 | 454 | 485 | 480 |
| 24 | | | | | 754 | 475 | 422 | 205 | 208 | 458 | 500 | 483 |
| 25 | | | | | 696 | 474 | 393 | 208 | 210 | 477 | 510 | 483 |
| 26 | | | | | 640 | 466 | 387 | 215 | 219 | 510 | 520 | 485 |
| 27 | | | | | 594 | 450 | 392 | 222 | 228 | 494 | 490 | 488 |
| 28 | | | | | 535 | 451 | 378 | 222 | 238 | 472 | 460 | 490 |
| 29 | | | | | 756 | 439 | 357 | 212 | 247 | 452 | 454 | 492 |
| 30 | | | | | --- | 440 | 329 | 213 | 256 | 436 | 470 | 495 |
| 31 | | | | | --- | 443 | --- | 216 | --- | 452 | 500 | --- |

## 09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | | | | | | | | | --- | --- | 4.5 | 1.0 |
| 2 | | | | | | | | | --- | --- | 3.0 | 1.0 |
| 3 | | | | | | | | | --- | --- | 3.5 | 2.0 |
| 4 | | | | | | | | | --- | --- | 4.5 | 2.0 |
| 5 | | | | | | | | | --- | --- | 4.5 | 2.0 |
| 6 | | | | | | | | | --- | --- | 3.0 | 1.5 |
| 7 | | | | | | | | | --- | --- | 4.0 | 1.5 |
| 8 | | | | | | | | | --- | --- | 5.0 | 2.0 |
| 9 | | | | | | | | | --- | --- | 4.5 | 2.0 |
| 10 | | | | | | | | | --- | --- | 5.0 | 2.0 |
| 11 | | | | | | | | | --- | --- | 5.0 | 2.5 |
| 12 | | | | | | | | | --- | --- | 5.5 | 3.0 |
| 13 | | | | | | | | | --- | --- | 5.5 | 2.5 |
| 14 | | | | | | | | | --- | --- | 6.5 | 3.0 |
| 15 | | | | | | | | | 1.5 | .5 | 6.0 | 4.0 |
| 16 | | | | | | | | | 2.0 | 1.0 | 5.5 | 3.0 |
| 17 | | | | | | | | | 1.5 | 1.0 | 5.0 | 2.0 |
| 18 | | | | | | | | | 2.0 | 1.5 | 5.5 | 2.5 |
| 19 | | | | | | | | | 2.5 | 1.5 | 7.0 | 3.0 |
| 20 | | | | | | | | | 2.5 | 1.5 | 7.0 | 3.5 |
| 21 | | | | | | | | | 3.0 | 1.5 | 7.5 | 3.5 |
| 22 | | | | | | | | | 3.0 | 1.5 | 8.0 | 5.5 |
| 23 | | | | | | | | | 2.5 | 1.5 | 7.5 | 5.0 |
| 24 | | | | | | | | | 3.0 | 1.0 | 7.5 | 4.0 |
| 25 | | | | | | | | | 3.0 | 1.0 | 7.0 | 5.0 |
| 26 | | | | | | | | | 3.0 | 1.0 | 7.5 | 4.0 |
| 27 | | | | | | | | | 3.5 | 1.5 | 7.0 | 3.0 |
| 28 | | | | | | | | | 4.0 | 1.5 | 6.0 | 3.5 |
| 29 | | | | | | | | | 3.5 | 1.5 | 6.5 | 3.0 |
| 30 | | | | | | | | | --- | --- | 5.5 | 3.0 |
| 31 | | | | | | | | | --- | --- | 4.0 | 2.5 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 6.5 | 2.0 | 9.0 | 7.5 | 11.0 | 9.0 | 18.0 | 15.5 | 20.0 | 19.0 | 15.5 | 13.5 |
| 2 | 7.0 | 4.0 | 10.5 | 7.0 | 11.5 | 9.0 | 18.5 | 16.5 | 20.0 | 18.0 | 16.0 | 14.0 |
| 3 | 8.0 | 3.5 | 10.5 | 8.0 | 12.5 | 9.5 | 18.0 | 17.0 | 20.0 | 18.0 | 16.5 | 14.5 |
| 4 | 9.0 | 4.5 | 11.0 | 8.5 | 12.5 | 10.0 | --- | --- | 19.5 | 17.5 | --- | --- |
| 5 | 9.5 | 6.0 | 12.0 | 9.0 | 12.0 | 10.0 | --- | --- | 19.0 | 16.5 | --- | --- |
| 6 | 9.0 | 6.5 | 11.0 | 9.5 | 12.0 | 9.5 | --- | --- | 19.5 | 17.0 | --- | --- |
| 7 | 7.5 | 4.0 | 11.0 | 9.0 | 12.0 | 9.5 | --- | --- | 20.0 | 17.5 | --- | --- |
| 8 | 7.5 | 3.0 | 10.5 | 8.5 | 13.0 | 10.0 | --- | --- | 20.0 | 18.0 | --- | --- |
| 9 | 9.0 | 4.0 | 9.5 | 7.5 | 13.5 | 10.5 | --- | --- | 21.0 | 19.0 | --- | --- |
| 10 | 9.5 | 6.5 | 10.5 | 8.0 | 13.5 | 10.5 | --- | --- | 20.5 | 18.5 | --- | --- |
| 11 | 7.5 | 5.0 | 11.5 | 9.0 | 13.0 | 10.5 | 20.0 | 18.0 | 20.0 | 17.5 | --- | --- |
| 12 | 9.0 | 4.5 | 10.5 | 8.0 | 12.0 | 10.0 | 20.0 | 17.5 | 19.5 | 17.0 | --- | --- |
| 13 | 9.5 | 4.5 | 9.5 | 7.0 | 12.5 | 10.5 | 18.5 | 16.5 | 20.0 | 17.5 | --- | --- |
| 14 | 10.5 | 5.0 | 10.0 | 7.5 | 12.5 | 10.0 | 18.5 | 16.0 | 19.5 | 17.5 | --- | --- |
| 15 | 10.5 | 7.0 | 10.5 | 8.0 | 12.0 | 10.0 | 18.0 | 16.0 | 19.5 | 18.0 | --- | --- |
| 16 | 11.5 | 7.5 | 11.0 | 8.5 | 12.5 | 10.5 | 18.0 | 16.0 | 18.0 | 16.0 | --- | --- |
| 17 | 11.5 | 7.0 | 10.5 | 9.0 | 12.0 | 11.0 | 18.5 | 17.0 | 17.5 | 15.5 | --- | --- |
| 18 | 12.0 | 7.5 | 11.0 | 9.5 | 13.0 | 11.0 | 19.0 | 17.0 | 17.5 | 15.5 | --- | --- |
| 19 | 12.5 | 8.0 | 12.0 | 9.5 | 12.5 | 11.5 | 19.0 | 17.5 | 17.5 | 15.5 | --- | --- |
| 20 | 12.5 | 9.0 | 13.5 | 10.0 | 12.5 | 10.5 | 18.5 | 17.5 | 17.0 | 15.0 | --- | --- |
| 21 | 12.0 | 9.0 | 14.0 | 10.5 | 13.0 | 11.0 | 19.0 | 17.0 | 17.5 | 15.0 | --- | --- |
| 22 | 11.0 | 9.5 | 14.0 | 11.0 | 13.5 | 11.0 | 19.0 | 17.5 | 18.0 | 15.0 | --- | --- |
| 23 | 10.0 | 8.5 | 13.0 | 11.0 | 13.5 | 11.5 | 19.0 | 18.0 | 17.5 | 16.0 | --- | --- |
| 24 | 8.5 | 7.0 | 11.0 | 9.5 | 14.5 | 12.0 | 18.0 | 17.0 | 17.5 | 16.5 | --- | --- |
| 25 | 10.0 | 6.5 | 10.0 | 8.0 | 16.0 | 12.0 | 18.0 | 16.0 | 18.0 | 16.0 | --- | --- |
| 26 | 10.5 | 7.5 | 10.5 | 7.5 | 16.5 | 14.5 | 18.5 | 16.0 | 18.0 | 16.0 | --- | --- |
| 27 | 10.5 | 7.5 | 11.5 | 8.5 | 17.0 | 14.5 | 19.0 | 17.0 | 18.0 | 16.0 | --- | --- |
| 28 | 11.0 | 8.5 | 12.0 | 9.0 | 16.5 | 14.5 | 19.5 | 17.5 | 17.5 | 15.5 | --- | --- |
| 29 | 10.5 | 9.0 | 11.0 | 10.0 | 17.0 | 15.0 | 19.5 | 17.5 | 17.5 | 15.5 | --- | --- |
| 30 | 10.0 | 9.0 | 11.5 | 8.5 | 17.0 | 15.0 | 19.5 | 18.0 | 16.5 | 14.5 | --- | --- |
| 31 | --- | --- | 12.0 | 9.0 | --- | --- | 20.0 | 18.0 | 15.5 | 14.0 | --- | --- |

## 09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO
(Irrigation Network Station)

LOCATION.--Lat 39°34'12", long 107°13'34", Garfield County, Hydrologic Unit 14010001, at Shoshone power plant, 6 mi (10 km) upstream from Glenwood Springs, and 6.5 mi (10.5 km) upstream from Roaring Fork River.

DRAINAGE AREA.--4,560 $mi^2$ (11,810 $km^2$), approximately.

PERIOD OF RECORD.--October 1941 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1941 to current year.
WATER TEMPERATURES: May 1949 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Discharge obtained by subtracting the flow in Roaring Fork River at Glenwood Springs (station 09085000) from the flow in Colorado River below Glenwood Springs (station 09085100).

COOPERATION.--Additional chemical data supplied by Water and Power Resources Service (noted by an asterisk in the water year heading).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,260 micromhos Aug. 10, 1947; minimum daily, 153 micromhos May 24, 1948.
WATER TEMPERATURES: Maximum, 23.5°C Aug. 9; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 890 micromhos Feb. 10; minimum, 195 micromhos June 13.
WATER TEMPERATURES: Maximum, 23.5°C Aug. 9; minimum, 0°C many days during winter months.

### WATER-QUALITY RECORDS, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | OXYGEN, DISSOLVED (MG/L) | NITROGEN, DISSOLVED (MG/L AS N) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) | CALCIUM DISSOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 01... | 1550 | 1380 | 770 | 7.1 | 13.0 | 10.2 | -- | 170 | 76 | 50 |
| NOV | | | | | | | | | | |
| 05... | 1530 | 1440 | 880 | 7.5 | 8.0 | -- | -- | 210 | 98 | 62 |
| DEC | | | | | | | | | | |
| 19... | 1500 | 1160 | 850 | 7.2 | .0 | 10.4 | -- | 180 | 73 | 55 |
| JAN | | | | | | | | | | |
| 29... | 1516 | 1150 | -- | 7.6 | .0 | 10.1 | .44 | 180 | 72 | 53 |
| MAR | | | | | | | | | | |
| 19... | 1101 | 1100 | 620 | 7.6 | 4.5 | 9.4 | .50 | -- | -- | -- |
| JUN | | | | | | | | | | |
| 18... | 0801 | 8000 | 260 | 7.2 | 11.5 | 8.8 | .53 | -- | -- | -- |

| DATE | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 01... | 11 | 53 | 1.8 | 2.5 | 94 | 74 | .3 | 7.5 | 365 | .50 |
| NOV | | | | | | | | | | |
| 05... | 13 | 67 | 2.0 | 2.6 | 110 | 91 | .2 | 10 | 423 | .58 |
| DEC | | | | | | | | | | |
| 19... | 11 | 67 | 2.2 | 2.7 | 110 | 100 | .2 | 10 | 406 | .55 |
| JAN | | | | | | | | | | |
| 29... | 12 | 76 | 2.5 | 2.5 | 110 | 110 | .2 | 11 | 422 | .57 |
| MAR | | | | | | | | | | |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

## 09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

### WATER-QUALITY RECORDS, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | SOLIDS, DIS- SOLVED (TONS PER DAY) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) | NITRO- GEN, TOTAL (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 01... | 1360 | -- | .01 | -- | -- | -- | -- | .000 | 10 | 20 |
| NOV | | | | | | | | | | |
| 05... | 1640 | -- | .11 | -- | -- | -- | -- | .020 | 150 | 20 |
| DEC | | | | | | | | | | |
| 19... | 1270 | -- | .25 | -- | -- | -- | -- | .020 | 150 | 30 |
| JAN | | | | | | | | | | |
| 29... | 1310 | .21 | .23 | .24 | .21 | .45 | .030 | .020 | 180 | 40 |
| MAR | | | | | | | | | | |
| 19... | -- | .07 | .08 | .63 | .42 | .70 | .020 | .010 | -- | -- |
| JUN | | | | | | | | | | |
| 18... | -- | .15 | .10 | .51 | .43 | .66 | .060 | .020 | -- | -- |

| DATE | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DIS- SOLVED (UG/L AS AS) | CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) | COPPER, DIS- SOLVED (UG/L AS CU) |
|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | |
| 29... | 1 | 1 | 0 | <1 | 4 | 4 | 1 | 0 |
| 29... | 1 | 1 | 0 | <1 | 4 | 4 | 1 | 0 |
| MAR | | | | | | | | |
| 19... | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 3 |
| 19... | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 3 |
| JUN | | | | | | | | |
| 18... | 1 | 1 | 0 | 1 | 11 | 5 | 5 | 1 |
| 18... | 1 | 1 | 0 | 1 | 11 | 5 | 5 | 1 |

| DATE | LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) | LEAD, DIS- SOLVED (UG/L AS PB) | MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) | MERCURY DIS- SOLVED (UG/L AS HG) | SELE- NIUM, TOTAL (UG/L AS SE) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) | ZINC, DIS- SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | |
| 29... | 1 | 1 | .0 | .0 | 0 | 0 | 30 | 9 |
| 29... | 1 | 1 | .0 | .0 | 0 | 0 | 30 | 9 |
| MAR | | | | | | | | |
| 19... | 9 | 0 | .0 | .0 | 1 | 0 | 20 | 10 |
| 19... | 9 | 0 | .0 | .0 | 1 | 0 | 20 | 10 |
| JUN | | | | | | | | |
| 18... | 2 | 0 | .1 | .0 | 0 | 0 | 20 | 10 |
| 18... | 2 | 0 | .1 | .0 | 0 | 0 | 20 | 10 |

## 09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980 *

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | |
| 17... | 0930 | 1140 | 697 | 8.2 | 2.0 | 180 | 80 | 54 | 11 | 72 |
| 21... | 1330 | 1100 | 713 | 8.0 | .0 | 190 | 84 | 56 | 11 | 73 |
| 29... | 1515 | 1150 | 711 | 8.0 | .0 | 190 | 82 | 56 | 11 | 72 |
| FEB | | | | | | | | | | |
| 07... | 1530 | 1050 | 682 | 8.2 | 1.0 | 170 | 73 | 52 | 10 | 74 |
| 13... | 1300 | 1020 | 797 | 7.9 | .0 | 190 | 84 | 57 | 12 | 82 |
| 21... | 1200 | 1000 | 710 | 8.2 | 1.5 | 180 | 82 | 54 | 11 | 69 |
| 29... | 1030 | 900 | 717 | 8.3 | 1.5 | 190 | 86 | 56 | 12 | 71 |
| MAR | | | | | | | | | | |
| 06... | 1010 | 1200 | 694 | 8.2 | 4.0 | 180 | 83 | 54 | 11 | 68 |
| 18... | 0845 | 980 | 716 | 8.2 | 3.5 | 200 | 90 | 58 | 12 | 72 |
| 19... | 1100 | 1100 | 717 | 8.2 | 4.5 | 190 | 85 | 56 | 12 | 70 |
| 27... | 1250 | 1200 | 648 | 8.0 | 5.0 | 180 | 76 | 52 | 11 | 62 |
| APR | | | | | | | | | | |
| 01... | 1250 | 1150 | 629 | 8.2 | 3.0 | 170 | 74 | 50 | 11 | 64 |
| 08... | 1145 | 1170 | 645 | 8.0 | 4.5 | 180 | 77 | 52 | 11 | 63 |
| 17... | 0850 | 1400 | 631 | 8.2 | 9.0 | 190 | 78 | 54 | 12 | 56 |
| 25... | 1230 | 2600 | 502 | 8.0 | 7.5 | 170 | 72 | 46 | 13 | 36 |
| 30... | 0800 | 3400 | 381 | 7.7 | 9.0 | 140 | 45 | 38 | 9.8 | 24 |
| MAY | | | | | | | | | | |
| 08... | 1400 | 6300 | 309 | 7.3 | 9.0 | 120 | 36 | 34 | 7.4 | 16 |
| 13... | 1245 | 5900 | 286 | 7.3 | 8.0 | 110 | 27 | 31 | 6.8 | 15 |
| 23... | 1230 | 8600 | 260 | 8.2 | 17.0 | 110 | 26 | 31 | 6.2 | 10 |
| 30... | 1300 | 8110 | 242 | 7.2 | 9.0 | 90 | 21 | 26 | 5.7 | 11 |
| JUN | | | | | | | | | | |
| 04... | 0755 | 7060 | 238 | 7.4 | 10.5 | 91 | 24 | 27 | 5.7 | 12 |
| 13... | 1215 | 9720 | 206 | 8.1 | 10.5 | 81 | 16 | 25 | 4.6 | 8.5 |
| 18... | 0800 | 8000 | 239 | 8.0 | 11.5 | 87 | 23 | 25 | 5.4 | 13 |
| 25... | 0945 | 4450 | 276 | 8.2 | 12.5 | 91 | 23 | 27 | 5.6 | 16 |
| JUL | | | | | | | | | | |
| 03... | 1245 | 4710 | 356 | 8.0 | 15.5 | 120 | 36 | 36 | 7.2 | 21 |
| 11... | 1225 | 2850 | 453 | 8.3 | 17.5 | 150 | 53 | 44 | 9.1 | 34 |
| 16... | 0750 | 3000 | 488 | 8.2 | 17.0 | 150 | 54 | 46 | 9.5 | 36 |
| 25... | 0945 | 1970 | 563 | 7.8 | 17.0 | 170 | 66 | 52 | 10 | 46 |
| 31... | 1315 | 1860 | 614 | 8.2 | 20.0 | 190 | 76 | 57 | 10 | 50 |
| AUG | | | | | | | | | | |
| 07... | 1100 | 1570 | 645 | 8.1 | -- | 190 | 81 | 58 | 11 | 58 |
| 13... | 1105 | 1600 | 633 | 8.0 | 18.0 | 180 | 75 | 54 | 10 | 58 |
| 22... | 1140 | 1460 | 625 | 8.0 | 16.0 | 180 | 76 | 52 | 10 | 56 |
| 29... | 1110 | 1630 | 580 | 8.2 | 16.0 | 160 | 67 | 49 | 9.8 | 53 |
| SEP | | | | | | | | | | |
| 04... | 0750 | 1400 | 650 | 8.2 | 15.5 | 180 | 75 | 53 | 10 | 58 |
| 11... | 0950 | 1780 | 574 | 8.2 | 15.8 | 170 | 64 | 50 | 9.8 | 49 |
| 18... | 1105 | 1350 | 591 | 8.1 | 13.5 | 170 | 74 | 52 | 10 | 53 |
| 25... | 1040 | 1250 | 580 | 8.1 | 12.0 | 180 | 76 | 52 | 10 | 58 |

## 09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980 *

| DATE | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | BICAR-BONATE (MG/L AS HCO3) | CAR-BONATE (MG/L AS CO3) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | |
| 17... | 2.3 | 3.5 | 124 | 0 | 102 | 99 | 99 | 392 | .53 | 1210 |
| 21... | 2.3 | 3.5 | 129 | 0 | 106 | 102 | 104 | 409 | .56 | 1220 |
| 29... | 2.3 | 3.5 | 127 | 0 | 104 | 99 | 107 | 402 | -- | 1250 |
| FEB | | | | | | | | | | |
| 07... | 2.5 | 3.5 | 123 | 0 | 101 | 85 | 102 | 401 | .55 | 1140 |
| 13... | 2.3 | 3.1 | 135 | 0 | 111 | 108 | 116 | 449 | .61 | 1240 |
| 21... | 2.2 | 3.5 | 124 | 0 | 102 | 99 | 98 | 405 | .55 | 1090 |
| 29... | 2.2 | 3.1 | 124 | 2 | 106 | 99 | 103 | 422 | .57 | 1030 |
| MAR | | | | | | | | | | |
| 06... | 2.2 | 3.9 | 123 | 0 | 101 | 99 | 98 | 413 | .56 | 1340 |
| 18... | 1.6 | 4.7 | 129 | 0 | 106 | 102 | 101 | 419 | .57 | 1110 |
| 19... | 1.6 | 3.9 | 131 | 0 | 107 | 106 | 99 | 417 | .57 | 1240 |
| 27... | 2.0 | 3.1 | 124 | 0 | 102 | 96 | 85 | 389 | .53 | 1260 |
| APR | | | | | | | | | | |
| 01... | 2.1 | 3.1 | 120 | 0 | 98 | 89 | 83 | 375 | .51 | 1160 |
| 08... | 2.1 | 3.5 | 126 | 0 | 103 | 89 | 84 | 373 | .51 | 1180 |
| 17... | 1.8 | 3.1 | 132 | 0 | 108 | 99 | 73 | 387 | .53 | 1460 |
| 25... | 1.2 | 3.9 | 120 | 0 | 98 | 118 | 35 | 332 | .45 | 2330 |
| 30... | .9 | 2.3 | 110 | 0 | 90 | 64 | 27 | 246 | .33 | 2260 |
| MAY | | | | | | | | | | |
| 08... | .7 | 3.1 | 97 | 0 | 80 | 49 | 16 | 208 | .28 | 3540 |
| 13... | .7 | 2.7 | 97 | 0 | 80 | 41 | 16 | 191 | .26 | 3040 |
| 23... | .5 | 2.3 | 96 | 0 | 79 | 35 | 12 | 182 | .25 | 4230 |
| 30... | .5 | 1.6 | 84 | 0 | 69 | 28 | 14 | 161 | .22 | 3530 |
| JUN | | | | | | | | | | |
| 04... | .5 | 1.6 | 81 | 0 | 67 | 33 | 14 | 157 | .21 | 2990 |
| 13... | .4 | 1.2 | 79 | 0 | 66 | 29 | 9.9 | 129 | .18 | 3390 |
| 18... | .6 | 1.6 | 77 | 0 | 64 | 32 | 16 | 158 | .21 | 3410 |
| 25... | .7 | 1.6 | 83 | 0 | 68 | 39 | 19 | 170 | .23 | 2040 |
| JUL | | | | | | | | | | |
| 03... | .8 | 2.3 | 103 | 0 | 85 | 50 | 25 | 219 | .30 | 2790 |
| 11... | 1.2 | 2.3 | 111 | 2 | 95 | 66 | 45 | 232 | .32 | 1790 |
| 16... | 1.3 | 2.7 | 122 | 0 | 100 | 69 | 47 | 245 | .33 | 1980 |
| 25... | 1.5 | 2.7 | 129 | 0 | 106 | 89 | 59 | 341 | .46 | 1810 |
| 31... | 1.6 | 3.1 | 137 | 0 | 112 | 99 | 67 | 370 | .50 | 1860 |
| AUG | | | | | | | | | | |
| 07... | 1.8 | 3.1 | 137 | 0 | 113 | 108 | 76 | 389 | .53 | 1650 |
| 13... | 1.9 | 3.1 | 125 | 0 | 103 | 99 | 81 | 380 | .52 | 1640 |
| 22... | 1.8 | 3.1 | 122 | 0 | 100 | 99 | 73 | 375 | .51 | 1480 |
| 29... | .7 | 2.7 | 119 | 0 | 98 | 84 | 69 | 344 | .47 | 1510 |
| SEP | | | | | | | | | | |
| 04... | 1.9 | 3.1 | 125 | 0 | 103 | 99 | 78 | 391 | .53 | 1480 |
| 11... | 1.7 | 3.1 | 125 | 0 | 103 | 89 | 63 | 349 | .47 | 1680 |
| 18... | 1.8 | 3.1 | 119 | 0 | 98 | 97 | 65 | 334 | .45 | 1220 |
| 25... | 1.9 | 3.1 | 122 | 0 | 100 | 97 | 79 | 399 | .54 | 1350 |

## 09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | --- | 758 | 695 | 642 | 380 | 239 | 240 | 520 | 620 |
| 2 | | | | --- | 698 | 672 | 650 | 360 | 245 | 238 | 500 | 637 |
| 3 | | | | --- | 624 | 649 | 647 | 350 | 246 | 246 | 480 | 686 |
| 4 | | | | --- | 598 | 654 | 656 | 350 | 237 | 273 | 490 | 642 |
| 5 | | | | --- | 609 | 668 | 668 | 340 | 226 | 302 | 520 | 592 |
| 6 | | | | --- | 601 | 695 | 687 | 330 | 214 | 334 | 540 | 591 |
| 7 | | | | --- | 626 | 719 | 681 | 320 | 210 | 369 | 540 | 608 |
| 8 | | | | --- | 644 | 720 | 667 | 315 | 218 | 390 | 548 | 662 |
| 9 | | | | --- | 736 | 727 | 659 | 307 | 217 | 408 | 623 | 671 |
| 10 | | | | --- | 810 | 728 | 665 | 309 | 212 | 429 | 623 | 618 |
| 11 | | | | --- | 820 | 716 | 663 | 303 | 211 | 453 | 629 | 594 |
| 12 | | | | --- | 814 | 702 | 643 | 295 | 213 | 468 | 639 | 573 |
| 13 | | | | --- | 768 | 697 | 635 | 297 | 212 | 475 | 620 | 544 |
| 14 | | | | --- | 722 | 713 | 628 | 314 | 215 | 479 | 560 | 569 |
| 15 | | | | --- | 676 | 715 | 621 | 330 | 220 | 489 | 520 | 610 |
| 16 | | | | --- | 630 | 701 | 607 | 336 | 229 | 606 | 500 | 635 |
| 17 | | | | 703 | 613 | 684 | 570 | 336 | 231 | 670 | 510 | 620 |
| 18 | | | | 702 | 597 | 668 | 537 | 336 | 241 | 660 | 540 | 608 |
| 19 | | | | 704 | 555 | 672 | 535 | 356 | 245 | 656 | 560 | 603 |
| 20 | | | | 710 | 569 | 677 | 508 | 343 | 253 | 582 | 580 | 608 |
| 21 | | | | 733 | 638 | 676 | 498 | 322 | 262 | 575 | 590 | 598 |
| 22 | | | | 754 | 639 | 676 | 490 | 291 | 268 | 560 | 600 | 611 |
| 23 | | | | 776 | 669 | 658 | 480 | 263 | 272 | 560 | 584 | 613 |
| 24 | | | | 810 | 602 | 654 | 470 | 245 | 270 | 558 | 579 | 598 |
| 25 | | | | 791 | 637 | 649 | 450 | 244 | 271 | 550 | 578 | 631 |
| 26 | | | | 735 | 653 | 646 | 440 | 245 | 271 | 547 | 576 | 639 |
| 27 | | | | 721 | 628 | 645 | 430 | 249 | 273 | 538 | 542 | 666 |
| 28 | | | | 716 | 742 | 640 | 420 | 253 | 277 | 500 | 568 | 650 |
| 29 | | | | 723 | 720 | 644 | 400 | 247 | 245 | 500 | 585 | 677 |
| 30 | | | | 699 | --- | 634 | 390 | 243 | 248 | 480 | 596 | 687 |
| 31 | | | | 721 | --- | 634 | --- | 244 | --- | 500 | 613 | --- |

## 09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | | | | | | | --- | --- | .0 | .0 | --- | --- |
| 2 | | | | | | | --- | --- | .0 | .0 | 2.5 | 2.0 |
| 3 | | | | | | | --- | --- | .0 | .0 | 2.5 | 1.5 |
| 4 | | | | | | | --- | --- | 1.0 | .0 | 3.5 | 2.0 |
| 5 | | | | | | | --- | --- | 1.0 | .0 | 3.5 | 2.0 |
| 6 | | | | | | | --- | --- | 1.0 | .0 | 3.5 | 1.5 |
| 7 | | | | | | | --- | --- | 1.0 | .0 | 3.5 | 2.5 |
| 8 | | | | | | | --- | --- | .5 | --- | 3.5 | 2.5 |
| 9 | | | | | | | --- | --- | .0 | .0 | 3.5 | 2.5 |
| 10 | | | | | | | --- | --- | .0 | .0 | 4.5 | 2.5 |
| 11 | | | | | | | --- | --- | .0 | .0 | 4.5 | 4.0 |
| 12 | | | | | | | --- | --- | .0 | .0 | 4.0 | 3.0 |
| 13 | | | | | | | --- | --- | .0 | .0 | 3.0 | 1.0 |
| 14 | | | | | | | --- | --- | .0 | .0 | 3.5 | 1.5 |
| 15 | | | | | | | --- | --- | 2.0 | --- | 4.5 | 3.0 |
| 16 | | | | | | | --- | --- | 2.0 | --- | 5.0 | 4.0 |
| 17 | | | | | | | .5 | .0 | 1.5 | --- | 5.5 | 4.0 |
| 18 | | | | | | | .5 | .0 | 1.0 | --- | 6.0 | 5.5 |
| 19 | | | | | | | .0 | .0 | --- | --- | 6.0 | 5.0 |
| 20 | | | | | | | .0 | .0 | 1.0 | --- | 5.5 | 4.0 |
| 21 | | | | | | | .0 | .0 | 1.5 | --- | 5.5 | 4.5 |
| 22 | | | | | | | .0 | .0 | 2.0 | --- | 5.5 | 4.5 |
| 23 | | | | | | | .0 | .0 | 1.5 | 1.0 | 5.5 | 3.5 |
| 24 | | | | | | | .0 | .0 | 1.5 | --- | 4.5 | 4.0 |
| 25 | | | | | | | .0 | .0 | 1.0 | --- | 4.5 | 3.5 |
| 26 | | | | | | | .0 | .0 | 1.5 | --- | 4.5 | 3.0 |
| 27 | | | | | | | .5 | .0 | 2.5 | --- | 3.5 | 2.0 |
| 28 | | | | | | | .0 | .0 | 2.5 | .5 | 4.5 | --- |
| 29 | | | | | | | .0 | .0 | --- | --- | 5.0 | 4.0 |
| 30 | | | | | | | .0 | .0 | --- | --- | 6.0 | 3.5 |
| 31 | | | | | | | .0 | .0 | --- | --- | 7.0 | 5.0 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 7.0 | 5.5 | 8.5 | 7.0 | 10.5 | 8.5 | 15.0 | 13.5 | --- | --- | 17.5 | 15.0 |
| 2 | 7.0 | 6.0 | 8.0 | 6.5 | 10.5 | 8.5 | 15.0 | 14.5 | --- | --- | 18.0 | 15.5 |
| 3 | 7.0 | 5.5 | 9.0 | 7.5 | 10.5 | 9.0 | 16.0 | 14.0 | --- | --- | 18.5 | 16.5 |
| 4 | 5.5 | 3.5 | 9.0 | 8.0 | 11.0 | 9.0 | 16.0 | 14.5 | --- | --- | 19.0 | 16.5 |
| 5 | 6.5 | 4.0 | 10.0 | 8.5 | 11.0 | 9.5 | 15.5 | 14.5 | --- | --- | 20.0 | 17.0 |
| 6 | 7.5 | 6.0 | 10.0 | 8.5 | 11.0 | 9.5 | 15.5 | 14.5 | --- | --- | 20.0 | 18.0 |
| 7 | 7.0 | 5.5 | 9.5 | 8.0 | 11.0 | 9.5 | 15.5 | 14.5 | 23.0 | 20.5 | 20.0 | 18.0 |
| 8 | 6.5 | 4.0 | 9.0 | 7.5 | 11.5 | 9.5 | 16.0 | 14.5 | 23.0 | 21.0 | 20.0 | 18.0 |
| 9 | 7.0 | 5.0 | 8.5 | 7.0 | 12.5 | 10.5 | 16.5 | 15.0 | 23.5 | 21.5 | 19.0 | 17.5 |
| 10 | 8.0 | 5.5 | 9.0 | 7.0 | 12.0 | 10.5 | 17.0 | 16.0 | 23.0 | 21.0 | 18.0 | 17.5 |
| 11 | 8.0 | 7.0 | 10.0 | 8.0 | 12.0 | 10.5 | 18.0 | 16.0 | 22.0 | 20.0 | 18.0 | 16.0 |
| 12 | 9.0 | 7.0 | 9.5 | 7.5 | 12.0 | 10.5 | 18.0 | 17.0 | 21.5 | 19.5 | 18.5 | 16.0 |
| 13 | 9.5 | 7.0 | 7.5 | 6.5 | 12.0 | 10.5 | 17.5 | 16.0 | 21.5 | 20.0 | 18.0 | 15.5 |
| 14 | 9.5 | 7.5 | 8.0 | 6.5 | 12.0 | 10.5 | 17.0 | 15.5 | --- | --- | 18.0 | 15.5 |
| 15 | 10.0 | 8.0 | 8.5 | 7.0 | 12.0 | 10.5 | 17.0 | 16.0 | --- | --- | 18.0 | 15.5 |
| 16 | 10.0 | 8.5 | 9.5 | 7.5 | 12.5 | 10.5 | 22.0 | 16.0 | --- | --- | 18.0 | 16.0 |
| 17 | 10.0 | 8.5 | 9.0 | 8.0 | 12.5 | 10.5 | 22.0 | 20.0 | --- | --- | 17.5 | 15.5 |
| 18 | 10.0 | 8.5 | 9.5 | 7.0 | 13.5 | 10.5 | 22.0 | 20.0 | --- | --- | 17.5 | 15.0 |
| 19 | 9.0 | 7.5 | 10.0 | 8.5 | 13.0 | 11.0 | 22.0 | 20.0 | --- | --- | 17.5 | 15.5 |
| 20 | 8.0 | 6.5 | 11.0 | 9.0 | 13.0 | 10.5 | 22.0 | 20.0 | --- | --- | 18.0 | 16.0 |
| 21 | 8.0 | 5.5 | 12.0 | 9.5 | 13.5 | 11.0 | 22.0 | 20.0 | --- | --- | 18.0 | 15.5 |
| 22 | 8.0 | 6.5 | 12.0 | 10.5 | 14.0 | 11.0 | 22.0 | 20.0 | 20.0 | 17.5 | 16.5 | 14.5 |
| 23 | 8.5 | 6.5 | 11.5 | 10.5 | 14.0 | 11.5 | 22.0 | 20.5 | 20.0 | 18.0 | 16.0 | 14.0 |
| 24 | 8.5 | 7.5 | 11.0 | 9.5 | 14.5 | 12.0 | 21.0 | 20.0 | 19.0 | 18.0 | 15.5 | 13.5 |
| 25 | 8.5 | 8.0 | 9.0 | 7.5 | 14.5 | 12.0 | 20.0 | 18.5 | 20.0 | 18.0 | 15.5 | 13.5 |
| 26 | --- | --- | 9.0 | 7.0 | 15.0 | 13.0 | 21.0 | 18.0 | 20.0 | 18.5 | 15.5 | 13.5 |
| 27 | --- | --- | 10.0 | 7.5 | 15.0 | 13.0 | 21.5 | 19.5 | 20.0 | 17.5 | 15.5 | 14.0 |
| 28 | --- | --- | 10.5 | 8.5 | 14.5 | 13.0 | 22.0 | 20.0 | 19.5 | 17.5 | 16.0 | 14.0 |
| 29 | --- | --- | 10.0 | 9.0 | 14.5 | 12.5 | 22.0 | 20.0 | 19.5 | 17.5 | 16.0 | 14.5 |
| 30 | 8.5 | 8.0 | 10.5 | 7.5 | 14.5 | 14.0 | 23.0 | 20.0 | 18.5 | 16.0 | 16.0 | 14.5 |
| 31 | --- | --- | 10.5 | 8.0 | --- | --- | 22.0 | 21.0 | 17.0 | 15.5 | --- | --- |

## 09071300 GRIZZLY CREEK NEAR GLENWOOD SPRINGS. CO

LOCATION.--Lat 39°43'00". long 107°18'35". in NE¼SW¼ sec.7. T.4 S.. R.88 W.. Garfield County. Hydrologic Unit 14010001. on left bank 0.5 mi (0.8 km) west of Grizzly Cow Camp and 14 mi (23 km) north of Glenwood Springs.

DRAINAGE AREA.--5.73 $mi^2$ (14.84 $km^2$).

PERIOD OF RECORD.--September 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10.450 ft (3.185 m). from topographic map. Prior to Oct. 19. 1978. at site 600 ft (183 m) upstream at datum 1.30 ft (0.396 m) higher.

REMARKS.--Records fair except those for period of no gage-height record. which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

DRAINAGE AREA.--Maximum daily discharge. 200 $ft^3/s$ (5.66 $m^3/s$) June 15. 1978; maximum gage height. 6.41 ft (1.954 m) May 8. 1977 (backwater from ice); no flow Jan. 1 to Mar. 25. 1978. Feb. 1 to Apr. 19. 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge. 150 $ft^3/s$ (4.25 $m^3/s$) June 12. gage height. 4.54 ft (1.384 m). from outside highwater mark; no flow Feb. 1 to Apr. 19.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.4 | .80 | .60 | .30 | .00 | .00 | .00 | 1.2 | 54 | 22 | 2.3 | 1.6 |
| 2 | 1.4 | .80 | .60 | .30 | .00 | .00 | .00 | 1.2 | 60 | 20 | 2.4 | 1.4 |
| 3 | 1.3 | .80 | .60 | .30 | .00 | .00 | .00 | 1.4 | 60 | 16 | 2.2 | 1.2 |
| 4 | 1.2 | .80 | .50 | .30 | .00 | .00 | .00 | 1.4 | 64 | 12 | 2.1 | 1.0 |
| 5 | 1.1 | .80 | .50 | .30 | .00 | .00 | .00 | 1.4 | 74 | 10 | 2.1 | .96 |
| 6 | 1.1 | .70 | .50 | .20 | .00 | .00 | .00 | 1.6 | 90 | 8.8 | 1.9 | .96 |
| 7 | 1.0 | .70 | .50 | .20 | .00 | .00 | .00 | 1.8 | 110 | 8.0 | 2.0 | 1.2 |
| 8 | .98 | .70 | .50 | .20 | .00 | .00 | .00 | 2.0 | 120 | 7.6 | 1.8 | 1.6 |
| 9 | .99 | .70 | .50 | .20 | .00 | .00 | .00 | 2.1 | 130 | 6.8 | 1.7 | 1.8 |
| 10 | .95 | .70 | .50 | .20 | .00 | .00 | .00 | 2.3 | 130 | 6.2 | 1.8 | 2.0 |
| 11 | .94 | .70 | .50 | .20 | .00 | .00 | .00 | 2.6 | 130 | 5.9 | 2.1 | 1.8 |
| 12 | .94 | .70 | .50 | .20 | .00 | .00 | .00 | 2.6 | 140 | 5.6 | 2.9 | 1.6 |
| 13 | .96 | .70 | .50 | .20 | .00 | .00 | .00 | 2.2 | 130 | 5.8 | 2.7 | 1.4 |
| 14 | .93 | .70 | .40 | .20 | .00 | .00 | .00 | 2.1 | 130 | 6.1 | 2.4 | 1.4 |
| 15 | .92 | .70 | .40 | .20 | .00 | .00 | .00 | 2.1 | 130 | 5.2 | 2.1 | 1.4 |
| 16 | .91 | .70 | .40 | .20 | .00 | .00 | .00 | 2.3 | 120 | 4.8 | 1.9 | 1.2 |
| 17 | .85 | .70 | .40 | .20 | .00 | .00 | .00 | 2.6 | 120 | 4.6 | 1.9 | 1.2 |
| 18 | .84 | .70 | .40 | .20 | .00 | .00 | .00 | 3.0 | 120 | 4.4 | 1.7 | 1.2 |
| 19 | .97 | .70 | .40 | .20 | .00 | .00 | .00 | 4.0 | 110 | 4.1 | 1.7 | 1.0 |
| 20 | 1.1 | .70 | .40 | .10 | .00 | .00 | .05 | 5.0 | 105 | 3.7 | 1.8 | 1.4 |
| 21 | 1.1 | .60 | .40 | .10 | .00 | .00 | .10 | 9.0 | 100 | 3.5 | 1.8 | 1.2 |
| 22 | .98 | .60 | .40 | .10 | .00 | .00 | .20 | 13 | 94 | 3.4 | 1.8 | 1.0 |
| 23 | .89 | .60 | .40 | .10 | .00 | .00 | .60 | 18 | 88 | 3.3 | 1.7 | 1.0 |
| 24 | .91 | .60 | .40 | .10 | .00 | .00 | .60 | 27 | 78 | 3.1 | 1.7 | 1.0 |
| 25 | .93 | .60 | .40 | .10 | .00 | .00 | .60 | 23 | 62 | 3.0 | 1.6 | 1.0 |
| 26 | .91 | .60 | .40 | .08 | .00 | .00 | .60 | 22 | 52 | 2.9 | 1.6 | .96 |
| 27 | .89 | .60 | .40 | .06 | .00 | .00 | .80 | 24 | 39 | 2.7 | 1.6 | .96 |
| 28 | .86 | .60 | .40 | .04 | .00 | .00 | .90 | 28 | 31 | 2.6 | 1.4 | .96 |
| 29 | .84 | .60 | .30 | .03 | .00 | .00 | 1.0 | 32 | 24 | 2.5 | 1.4 | .96 |
| 30 | .84 | .60 | .30 | .02 | --- | .00 | 1.2 | 37 | 27 | 2.6 | 1.4 | .96 |
| 31 | .82 | --- | .30 | .01 | --- | .00 | --- | 42 | --- | 2.4 | 1.6 | --- |
| TOTAL | 30.75 | 20.50 | 13.70 | 5.14 | .00 | .00 | 6.65 | 319.9 | 2722 | 199.6 | 59.1 | 37.32 |
| MEAN | .99 | .68 | .44 | .17 | .000 | .000 | .22 | 10.3 | 90.7 | 6.44 | 1.91 | 1.24 |
| MAX | 1.4 | .80 | .60 | .30 | .00 | .00 | 1.2 | 42 | 140 | 22 | 2.9 | 2.0 |
| MIN | .82 | .60 | .30 | .01 | .00 | .00 | .00 | 1.2 | 24 | 2.4 | 1.4 | .96 |
| AC-FT | 61 | 41 | 27 | 10 | .00 | .00 | 13 | 635 | 5400 | 396 | 117 | 74 |

CAL YR 1979 TOTAL 5492.22 MEAN 15.0 MAX 190 MIN .05 AC-FT 10890
WTR YR 1980 TOTAL 3414.66 MEAN 9.33 MAX 140 MIN .00 AC-FT 6770

NOTE.--NO GAGE-HEIGHT RECORD NOV. 1 TO JUNE 23. AUG. 28 TO SEPT. 30.

## 09073300 ROARING FORK RIVER ABOVE DIFFICULT CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°08'28", long 106°46'25", Pitkin County, Hydrologic Unit 14010004, on left bank in the White River National Forest at Difficult Creek Campground, 0.45 mi (0.72 km) above Difficult Creek tributary and 4.25 mi (6.83 km) southeast of Aspen.

DRAINAGE AREA.--75.8 mi$^2$ (196 km$^2$).

PERIOD OF RECORD.--October 1979 to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 8,120 ft (2,475 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Transmountain diversion 11 mi (18 km) upstream through Twin Lakes Tunnel to Arkansas River basin since May 24, 1935 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,370 ft$^3$/s (38.8 m$^3$/s) at 2230 June 19, gage height, 4.01 ft (1.222 m); minimum daily, 8.0 ft$^3$/s (0.23 m$^3$/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | 17 | 12 | 12 | 12 | 13 | 12 | 42 | 131 | 340 | 72 | 32 |
| 2 | 25 | 15 | 13 | 12 | 13 | 13 | 12 | 42 | 133 | 310 | 69 | 31 |
| 3 | 24 | 15 | 14 | 11 | 13 | 12 | 12 | 43 | 147 | 300 | 65 | 30 |
| 4 | 22 | 17 | 14 | 12 | 14 | 12 | 12 | 47 | 173 | 292 | 65 | 29 |
| 5 | 22 | 16 | 15 | 11 | 13 | 12 | 12 | 56 | 202 | 284 | 64 | 29 |
| 6 | 22 | 15 | 15 | 11 | 13 | 12 | 12 | 65 | 210 | 272 | 60 | 28 |
| 7 | 22 | 18 | 14 | 11 | 11 | 13 | 11 | 74 | 196 | 260 | 55 | 27 |
| 8 | 21 | 17 | 14 | 11 | 10 | 12 | 12 | 82 | 192 | 244 | 56 | 27 |
| 9 | 21 | 17 | 14 | 11 | 8.5 | 12 | 12 | 75 | 216 | 220 | 56 | 30 |
| 10 | 20 | 17 | 13 | 10 | 9.5 | 12 | 12 | 72 | 350 | 210 | 54 | 34 |
| 11 | 20 | 17 | 13 | 8.0 | 10 | 12 | 11 | 72 | 550 | 202 | 49 | 47 |
| 12 | 20 | 17 | 11 | 12 | 10 | 13 | 11 | 69 | 700 | 192 | 46 | 43 |
| 13 | 20 | 16 | 10 | 14 | 11 | 13 | 12 | 60 | 800 | 188 | 45 | 40 |
| 14 | 20 | 16 | 10 | 16 | 11 | 13 | 12 | 61 | 700 | 185 | 43 | 36 |
| 15 | 20 | 16 | 11 | 16 | 13 | 13 | 13 | 62 | 650 | 173 | 49 | 35 |
| 16 | 20 | 16 | 12 | 14 | 12 | 13 | 14 | 62 | 650 | 167 | 59 | 33 |
| 17 | 20 | 16 | 11 | 13 | 11 | 13 | 14 | 61 | 650 | 173 | 52 | 30 |
| 18 | 20 | 17 | 11 | 12 | 13 | 13 | 17 | 56 | 700 | 167 | 44 | 29 |
| 19 | 22 | 17 | 10 | 12 | 13 | 14 | 22 | 61 | 900 | 158 | 42 | 29 |
| 20 | 22 | 17 | 11 | 11 | 12 | 12 | 26 | 72 | 1220 | 142 | 40 | 29 |
| 21 | 24 | 16 | 12 | 11 | 11 | 12 | 32 | 99 | 1050 | 123 | 39 | 29 |
| 22 | 19 | 15 | 13 | 10 | 12 | 13 | 36 | 152 | 920 | 119 | 38 | 29 |
| 23 | 22 | 13 | 13 | 9.0 | 11 | 12 | 35 | 210 | 940 | 112 | 38 | 29 |
| 24 | 25 | 14 | 11 | 11 | 11 | 12 | 34 | 173 | 930 | 99 | 38 | 28 |
| 25 | 24 | 15 | 13 | 13 | 10 | 13 | 30 | 131 | 910 | 93 | 42 | 27 |
| 26 | 26 | 15 | 12 | 12 | 11 | 12 | 32 | 110 | 920 | 93 | 43 | 27 |
| 27 | 22 | 16 | 12 | 12 | 12 | 12 | 37 | 107 | 880 | 93 | 40 | 23 |
| 28 | 19 | 13 | 12 | 12 | 12 | 12 | 42 | 116 | 830 | 87 | 35 | 22 |
| 29 | 16 | 9.5 | 10 | 12 | 13 | 12 | 49 | 123 | 602 | 82 | 34 | 20 |
| 30 | 14 | 10 | 10 | 11 | --- | 12 | 48 | 116 | 315 | 79 | 33 | 20 |
| 31 | 13 | --- | 11 | 10 | --- | 12 | --- | 128 | --- | 77 | 32 | --- |
| TOTAL | 652 | 465.5 | 377 | 363.0 | 336.0 | 386 | 646 | 2699 | 17767 | 5536 | 1497 | 902 |
| MEAN | 21.0 | 15.5 | 12.2 | 11.7 | 11.6 | 12.5 | 21.5 | 87.1 | 592 | 179 | 48.3 | 30.1 |
| MAX | 26 | 18 | 15 | 16 | 14 | 14 | 49 | 210 | 1220 | 340 | 72 | 47 |
| MIN | 13 | 9.5 | 10 | 8.0 | 8.5 | 12 | 11 | 42 | 131 | 77 | 32 | 20 |
| AC-FT | 1290 | 923 | 748 | 720 | 666 | 766 | 1280 | 5350 | 35240 | 10980 | 2970 | 1790 |

WTR YR 1980 TOTAL 31626.5 MEAN 86.4 MAX 1220 MIN 8.0 AC-FT 62730

NOTE.--NO GAGE-HEIGHT RECORD NOV. 19 TO MAR. 10.

## 09073400 ROARING FORK RIVER NEAR ASPEN, CO

LOCATION.--Lat 39°10'48", long 106°48'05", Pitkin County, Hydrologic Unit 14010004, on right bank 25 ft (8 m) upstream from private bridge, 115 ft (35 m) upstream from Salvation ditch headgate, 1.0 mi (1.6 km) southeast of Aspen, and 2.0 mi (3.2 km) upstream from Hunter Creek.

DRAINAGE AREA.--108 mi² (280 km²).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,014.01 ft (2,442.670 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 25, 1968, at site 85 ft (26 m) upstream at datum 1.16 ft (0.354 m) higher.

REMARKS.--Records fair except those for winter period and period of no gage-height record, which are poor. Transmountain diversion 14 mi (23 km) upstream through Twin Lakes tunnel to Arkansas River basin since May 24, 1935 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 138 ft³/s (3.908 m³/s), 99,980 acre-ft/yr (123 hm³/yr), including diversion by Twin Lakes tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,310 ft³/s (37.1 m³/s) July 1, 1965, gage height, 5.20 ft (1.585 m), site and datum then in use, from rating curve extended above 770 ft³/s (22 m³/s); minimum daily, 12 ft³/s (0.34 m³/s) Nov. 28, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,220 ft³/s (34.6 m³/s) at 0500 June 20, gage height, 4.32 ft (1.317 m); minimum daily, 20 ft³/s (0.57 m³/s) Apr. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 42 | 27 | 29 | 22 | 23 | 24 | 28 | 74 | 250 | 445 | 97 | 43 |
| 2 | 42 | 31 | 30 | 21 | 25 | 23 | 27 | 70 | 240 | 407 | 96 | 40 |
| 3 | 40 | 32 | 29 | 22 | 24 | 24 | 27 | 62 | 260 | 406 | 96 | 39 |
| 4 | 38 | 34 | 29 | 23 | 24 | 24 | 28 | 64 | 285 | 383 | 91 | 38 |
| 5 | 37 | 35 | 28 | 24 | 25 | 23 | 41 | 78 | 360 | 362 | 84 | 38 |
| 6 | 38 | 33 | 28 | 23 | 24 | 24 | 38 | 90 | 385 | 346 | 78 | 38 |
| 7 | 36 | 34 | 28 | 24 | 23 | 24 | 37 | 110 | 374 | 339 | 76 | 37 |
| 8 | 35 | 34 | 28 | 24 | 22 | 24 | 33 | 130 | 373 | 330 | 75 | 37 |
| 9 | 36 | 34 | 28 | 24 | 21 | 24 | 31 | 125 | 407 | 293 | 73 | 51 |
| 10 | 35 | 34 | 26 | 24 | 22 | 24 | 31 | 120 | 529 | 287 | 70 | 56 |
| 11 | 34 | 33 | 27 | 21 | 22 | 25 | 29 | 115 | 726 | 271 | 67 | 74 |
| 12 | 34 | 33 | 25 | 24 | 23 | 25 | 26 | 110 | 792 | 269 | 62 | 58 |
| 13 | 34 | 32 | 27 | 25 | 23 | 24 | 25 | 100 | 830 | 263 | 62 | 52 |
| 14 | 35 | 32 | 27 | 24 | 22 | 26 | 24 | 90 | 751 | 259 | 62 | 46 |
| 15 | 36 | 31 | 26 | 25 | 22 | 26 | 25 | 82 | 711 | 251 | 77 | 43 |
| 16 | 36 | 31 | 25 | 24 | 22 | 26 | 26 | 87 | 627 | 243 | 84 | 41 |
| 17 | 36 | 32 | 25 | 24 | 22 | 25 | 28 | 110 | 628 | 233 | 69 | 40 |
| 18 | 39 | 33 | 25 | 24 | 22 | 25 | 32 | 94 | 671 | 210 | 64 | 39 |
| 19 | 40 | 33 | 24 | 23 | 23 | 26 | 38 | 98 | 842 | 204 | 60 | 38 |
| 20 | 40 | 33 | 24 | 22 | 23 | 26 | 47 | 100 | 1150 | 187 | 56 | 37 |
| 21 | 44 | 32 | 24 | 21 | 23 | 26 | 57 | 110 | 1050 | 172 | 54 | 37 |
| 22 | 39 | 32 | 24 | 21 | 21 | 26 | 61 | 170 | 903 | 162 | 51 | 36 |
| 23 | 41 | 30 | 24 | 21 | 21 | 26 | 58 | 250 | 886 | 160 | 50 | 36 |
| 24 | 44 | 31 | 22 | 22 | 22 | 25 | 53 | 230 | 902 | 144 | 49 | 36 |
| 25 | 42 | 31 | 23 | 24 | 22 | 27 | 50 | 220 | 861 | 135 | 60 | 34 |
| 26 | 46 | 31 | 24 | 24 | 21 | 26 | 53 | 200 | 887 | 132 | 59 | 33 |
| 27 | 42 | 33 | 24 | 23 | 24 | 25 | 56 | 190 | 861 | 126 | 53 | 31 |
| 28 | 37 | 32 | 23 | 24 | 24 | 26 | 60 | 180 | 750 | 118 | 48 | 31 |
| 29 | 37 | 29 | 21 | 26 | 24 | 26 | 64 | 200 | 632 | 111 | 45 | 31 |
| 30 | 32 | 30 | 22 | 25 | --- | 26 | 74 | 220 | 433 | 105 | 43 | 30 |
| 31 | 30 | --- | 22 | 20 | --- | 27 | --- | 210 | --- | 104 | 44 | --- |
| TOTAL | 1177 | 962 | 791 | 718 | 659 | 778 | 1207 | 4089 | 19356 | 7457 | 2055 | 1220 |
| MEAN | 38.0 | 32.1 | 25.5 | 23.2 | 22.7 | 25.1 | 40.2 | 132 | 645 | 241 | 66.3 | 40.7 |
| MAX | 46 | 35 | 30 | 26 | 25 | 27 | 74 | 250 | 1150 | 445 | 97 | 74 |
| MIN | 30 | 27 | 21 | 20 | 21 | 23 | 24 | 62 | 240 | 104 | 43 | 30 |
| AC-FT | 2330 | 1910 | 1570 | 1420 | 1310 | 1540 | 2390 | 8110 | 38390 | 14790 | 4080 | 2420 |

CAL YR 1979 TOTAL 37624 MEAN 103 MAX 1200 MIN 18 AC-FT 74630
WTR YR 1980 TOTAL 40469 MEAN 111 MAX 1150 MIN 20 AC-FT 80270

NOTE.--NO GAGE-HEIGHT RECORD APR. 26 TO JUNE 4.

## 09073700 HUNTER CREEK ABOVE MIDWAY CREEK, NEAR ASPEN, CO

LOCATION.--Lat 39°12'50", long 106°39'19", Pitkin County, Hydrologic Unit 14010004, on right bank 2.8 mi (4.5 km) upstream from Midway Creek and 9 mi (14 km) east of Aspen.

DRAINAGE AREA.--6.18 mi² (16.01 km²).

PERIOD OF RECORD.--October 1964 to September 1980 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 10,500 ft (3,200 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 14.1 ft³/s (0.399 m³/s), 10,220 acre-ft/yr (12.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 580 ft³/s (16.4 m³/s) June 26, 1973, gage height, 3.18 ft (0.969 m), from rating curve extended above 130 ft³/s (3.7 m³/s); minimum daily determined, 0.30 ft³/s (0.008 m³/s) Nov. 28, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 170 ft³/s (4.81 m³/s) at 2000 June 22, gage height, 2.34 ft (0.713 m), only peak above base of 150 ft³/s (4.2 m³/s); minimum daily, 0.35 ft³/s (0.010 m³/s) Apr. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.1 | 1.4 | .72 | .50 | .48 | .48 | .41 | 1.6 | 22 | 76 | 6.0 | 1.6 |
| 2 | 1.0 | 1.1 | .74 | .50 | .48 | .47 | .40 | 1.5 | 23 | 72 | 6.2 | 1.4 |
| 3 | .96 | 1.2 | .70 | .50 | .50 | .48 | .40 | 1.5 | 34 | 60 | 5.7 | 1.3 |
| 4 | .92 | 1.2 | .70 | .50 | .50 | .49 | .41 | 2.2 | 45 | 54 | 5.7 | 1.4 |
| 5 | .95 | 1.2 | .70 | .50 | .47 | .50 | .40 | 3.4 | 54 | 45 | 4.9 | 1.3 |
| 6 | .95 | 1.1 | .70 | .50 | .47 | .52 | .39 | 5.4 | 48 | 35 | 4.3 | 1.2 |
| 7 | .91 | 1.1 | .66 | .52 | .47 | .49 | .40 | 7.0 | 42 | 35 | 4.1 | 1.3 |
| 8 | .85 | 1.0 | .64 | .52 | .48 | .47 | .39 | 7.0 | 51 | 40 | 4.0 | 1.5 |
| 9 | .85 | 1.0 | .62 | .52 | .47 | .47 | .38 | 6.8 | 70 | 36 | 4.1 | 2.8 |
| 10 | .85 | 1.0 | .60 | .52 | .49 | .47 | .37 | 6.6 | 89 | 30 | 3.6 | 4.0 |
| 11 | .85 | 1.1 | .60 | .50 | .49 | .48 | .37 | 6.2 | 97 | 28 | 3.0 | 5.5 |
| 12 | .85 | 1.1 | .60 | .50 | .48 | .50 | .37 | 6.0 | 103 | 26 | 2.5 | 3.4 |
| 13 | .84 | 1.0 | .60 | .52 | .48 | .50 | .37 | 5.8 | 87 | 23 | 2.5 | 2.7 |
| 14 | .82 | 1.0 | .60 | .52 | .48 | .48 | .37 | 5.8 | 77 | 20 | 2.9 | 2.0 |
| 15 | .89 | 1.0 | .58 | .52 | .49 | .47 | .37 | 6.0 | 76 | 18 | 7.8 | 1.8 |
| 16 | .90 | .98 | .56 | .52 | .50 | .48 | .38 | 6.0 | 84 | 17 | 5.1 | 1.8 |
| 17 | .84 | .96 | .56 | .52 | .51 | .47 | .39 | 6.2 | 85 | 16 | 3.7 | 1.7 |
| 18 | 1.0 | 1.0 | .56 | .50 | .51 | .46 | .43 | 6.6 | 91 | 15 | 2.6 | 1.5 |
| 19 | 1.2 | 1.0 | .56 | .52 | .52 | .46 | .44 | 8.0 | 98 | 14 | 2.2 | 1.4 |
| 20 | 1.4 | .94 | .56 | .52 | .51 | .47 | .48 | 10 | 84 | 12 | 2.2 | 2.3 |
| 21 | 1.6 | .84 | .54 | .52 | .50 | .46 | .50 | 18 | 98 | 11 | 1.9 | 1.8 |
| 22 | 1.4 | .88 | .54 | .48 | .50 | .45 | .45 | 25 | 126 | 12 | 1.8 | 1.6 |
| 23 | 1.1 | .90 | .54 | .47 | .50 | .45 | .42 | 31 | 110 | 11 | 2.2 | 1.5 |
| 24 | .86 | .94 | .56 | .50 | .50 | .45 | .37 | 30 | 100 | 9.9 | 3.5 | 1.5 |
| 25 | .97 | .94 | .56 | .52 | .50 | .43 | .35 | 14 | 110 | 9.2 | 5.5 | 1.4 |
| 26 | 1.5 | .90 | .56 | .50 | .52 | .43 | .47 | 10 | 120 | 8.6 | 4.3 | 1.3 |
| 27 | 1.5 | .84 | .56 | .50 | .52 | .43 | .56 | 12 | 100 | 8.1 | 3.1 | 1.2 |
| 28 | 1.4 | .78 | .56 | .48 | .50 | .43 | .80 | 19 | 80 | 7.5 | 2.3 | 1.3 |
| 29 | 1.1 | .72 | .54 | .48 | .50 | .43 | 1.2 | 18 | 74 | 7.0 | 2.0 | 1.2 |
| 30 | 1.4 | .70 | .50 | .50 | --- | .42 | 1.8 | 16 | 78 | 7.2 | 1.9 | 1.1 |
| 31 | 1.4 | --- | .48 | .50 | --- | .42 | --- | 24 | --- | 6.5 | 1.9 | --- |
| TOTAL | 33.16 | 29.82 | 18.50 | 15.67 | 14.32 | 14.41 | 14.84 | 326.6 | 2356 | 770.0 | 113.5 | 55.8 |
| MEAN | 1.07 | .99 | .60 | .51 | .49 | .46 | .49 | 10.5 | 78.5 | 24.8 | 3.66 | 1.86 |
| MAX | 1.6 | 1.4 | .74 | .52 | .52 | .52 | 1.8 | 31 | 126 | 76 | 7.8 | 5.5 |
| MIN | .82 | .70 | .48 | .47 | .47 | .42 | .35 | 1.5 | 22 | 6.5 | 1.8 | 1.1 |
| AC-FT | 66 | 59 | 37 | 31 | 28 | 29 | 29 | 648 | 4670 | 1530 | 225 | 111 |

CAL YR 1979 TOTAL 5163.11 MEAN 14.1 MAX 145 MIN .48 AC-FT 10240
WTR YR 1980 TOTAL 3762.62 MEAN 10.3 MAX 126 MIN .35 AC-FT 7460

NOTE.--NO GAGE-HEIGHT RECORD NOV. 1 TO MAY 22.

## 09073800 MIDWAY CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°11'47", long 106°41'22", Pitkin County, Hydrologic Unit 14010004, on right bank 1,700 ft (520 m) upstream from mouth and 5.7 mi (9.2 km) east of Aspen.

DRAINAGE AREA.--8.62 $mi^2$ (22.33 $km^2$).

PERIOD OF RECORD.--October 1970 to September 1980 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 10,080 ft (3,072 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years (water years 1971-76, 1978-80), 12.7 $ft^3/s$ (0.360 $m^3/s$), 9,200 acre-ft/yr (11.3 $hm^3/yr$). Water year 1977 omitted because of a diversion around the gage during construction of a diversion structure 0.2 mi (0.3 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 290 $ft^3/s$ (8.21 $m^3/s$) June 17, 1971, gage height, 3.17 ft (0.966 m), from floodmarks, from rating curve extended above 140 $ft^3/s$ (4.0 $m^3/s$); maximum gage height, 4.04 ft (1.231 m) Apr. 22, 1980 (backwater from ice); minimum daily discharge, 0.20 $ft^3/s$ (0.006 $m^3/s$) Nov. 28, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 141 $ft^3/s$ (3.99 $m^3/s$) at 1900 June 19, gage height, 2.15 ft (0.655 m), only peak above base of 90 $ft^3/s$ (2.5 $m^3/s$); maximum gage height, 4.04 ft (1.231 m) Apr. 22 (backwater from ice); minimum daily discharge, 0.60 $ft^3/s$ (0.017 $m^3/s$) Jan. 11, Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.4 | 1.2 | .80 | .90 | .80 | 1.0 | .90 | 3.8 | 13 | 19 | 3.8 | 1.7 |
| 2 | 1.3 | 1.0 | .90 | .90 | .90 | 1.0 | .90 | 5.0 | 13 | 19 | 3.8 | 1.7 |
| 3 | 1.3 | 1.1 | 1.0 | .80 | .90 | .90 | .90 | 6.0 | 15 | 18 | 3.5 | 1.5 |
| 4 | 1.1 | 1.2 | 1.0 | .90 | 1.0 | .90 | .90 | 7.7 | 19 | 17 | 3.5 | 1.5 |
| 5 | 1.1 | 1.1 | 1.1 | .80 | .90 | .90 | .90 | 6.0 | 26 | 16 | 3.0 | 1.5 |
| 6 | 1.1 | 1.1 | 1.1 | .80 | 1.0 | .90 | .90 | 5.6 | 26 | 14 | 2.8 | 1.5 |
| 7 | 1.1 | 1.2 | 1.0 | .80 | .80 | .90 | .80 | 5.8 | 28 | 13 | 2.7 | 1.5 |
| 8 | 1.1 | 1.2 | 1.0 | .80 | .70 | .90 | .90 | 5.4 | 39 | 12 | 2.6 | 1.8 |
| 9 | .98 | 1.2 | 1.0 | .80 | .60 | .90 | .90 | 4.2 | 54 | 11 | 2.6 | 2.7 |
| 10 | .98 | 1.2 | .90 | .70 | .70 | .90 | .90 | 3.8 | 58 | 11 | 2.4 | 3.2 |
| 11 | .98 | 1.2 | .90 | .60 | .70 | .90 | .80 | 4.3 | 62 | 10 | 2.2 | 3.3 |
| 12 | .98 | 1.2 | .80 | .80 | .70 | .90 | .80 | 4.7 | 61 | 9.5 | 2.1 | 2.6 |
| 13 | .86 | 1.1 | .70 | 1.0 | .80 | 1.0 | .90 | 3.8 | 61 | 9.0 | 2.1 | 2.4 |
| 14 | .86 | 1.1 | .70 | 1.2 | .80 | 1.0 | .90 | 3.8 | 62 | 8.5 | 2.2 | 1.9 |
| 15 | 1.1 | 1.1 | .80 | 1.2 | .90 | 1.0 | .90 | 4.0 | 49 | 7.7 | 4.7 | 1.9 |
| 16 | 1.2 | 1.1 | .90 | 1.0 | .90 | 1.0 | 1.0 | 4.3 | 50 | 7.2 | 3.1 | 1.8 |
| 17 | 1.3 | 1.1 | .80 | .90 | .80 | 1.0 | 1.1 | 4.3 | 50 | 6.7 | 2.6 | 1.7 |
| 18 | 1.4 | 1.2 | .80 | .90 | .90 | 1.0 | 1.1 | 4.2 | 56 | 6.5 | 2.2 | 1.6 |
| 19 | 1.5 | 1.2 | .70 | .90 | .90 | 1.0 | 1.4 | 5.6 | 86 | 6.3 | 2.1 | 1.6 |
| 20 | 1.5 | 1.2 | .80 | .80 | .80 | .90 | 1.9 | 6.0 | 95 | 6.0 | 2.0 | 2.0 |
| 21 | 1.5 | 1.1 | .90 | .80 | .80 | .90 | 2.4 | 7.2 | 65 | 6.0 | 2.0 | 1.6 |
| 22 | 1.4 | 1.0 | .90 | .70 | .90 | .90 | 2.6 | 9.1 | 55 | 5.8 | 1.8 | 1.5 |
| 23 | 1.5 | .90 | .90 | .70 | .80 | .90 | 2.6 | 10 | 55 | 5.8 | 2.1 | 1.5 |
| 24 | 1.8 | 1.0 | .80 | .80 | .80 | .90 | 2.4 | 9.6 | 55 | 5.8 | 2.6 | 1.5 |
| 25 | 1.7 | 1.1 | .90 | .90 | .70 | .90 | 2.2 | 15 | 55 | 5.8 | 3.3 | 1.5 |
| 26 | 1.8 | 1.1 | .80 | .90 | .80 | .90 | 2.4 | 13 | 55 | 5.6 | 2.8 | 1.5 |
| 27 | 1.5 | 1.0 | .80 | .90 | .90 | .90 | 2.8 | 9.6 | 50 | 4.7 | 2.4 | 1.5 |
| 28 | 1.3 | .80 | .80 | .90 | .90 | .90 | 3.2 | 10 | 50 | 4.5 | 2.1 | 1.2 |
| 29 | 1.1 | .70 | .70 | .80 | .90 | .90 | 3.6 | 10 | 38 | 4.3 | 1.9 | 1.4 |
| 30 | 1.0 | .70 | .70 | .80 | --- | .90 | 3.4 | 11 | 26 | 4.3 | 1.9 | 1.3 |
| 31 | .90 | --- | .80 | .70 | --- | .90 | --- | 13 | --- | 4.0 | 1.8 | --- |
| TOTAL | 38.64 | 32.40 | 26.70 | 26.40 | 24.00 | 28.80 | 47.30 | 215.8 | 1427 | 284.0 | 80.7 | 53.9 |
| MEAN | 1.25 | 1.08 | .86 | .85 | .83 | .93 | 1.58 | 6.96 | 47.6 | 9.16 | 2.60 | 1.80 |
| MAX | 1.8 | 1.2 | 1.1 | 1.2 | 1.0 | 1.0 | 3.6 | 15 | 95 | 19 | 4.7 | 3.3 |
| MIN | .86 | .70 | .70 | .60 | .60 | .90 | .80 | 3.8 | 13 | 4.0 | 1.8 | 1.2 |
| AC-FT | 77 | 64 | 53 | 52 | 48 | 57 | 94 | 428 | 2830 | 563 | 160 | 107 |

CAL YR 1979 TOTAL 4833.03 MEAN 13.2 MAX 118 MIN .50 AC-FT 9590
WTR YR 1980 TOTAL 2285.64 MEAN 6.24 MAX 95 MIN .60 AC-FT 4530

NOTE.--NO GAGE-HEIGHT RECORD OCT. 30 TO APR. 15.

## 09073900 NO NAME CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°11'20", long 106°43'04", Pitkin County, Hydrologic Unit 14010004, on right bank 0.6 mi (1.0 km) upstream from mouth and 4.5 mi (7.2 km) east of Aspen.

DRAINAGE AREA.--6.54 mi$^2$ (16.94 km$^2$).

PERIOD OF RECORD.--October 1970 September 1980 (discontinued). Low-flow records not equivalent prior to Aug. 2, 1972, due to inflow between the sites.

GAGE.--Water-stage recorder. Altitude of gage is 10,000 ft (3,048 m), from topographic map. Prior to Aug. 2, 1972, at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--10 years, 8.29 ft$^3$/s (0.235 m$^3$/s), 6,010 acre-ft/yr (7.41 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 163 ft$^3$/s (4.62 m$^3$/s) June 17, 1971, gage height, 5.48 ft (1.670 m), site and datum then in use, from rating curve extended above 85 ft$^3$/s (2.4 m$^3$/s); minimum daily, 0.16 ft$^3$/s (0.005 m$^3$/s) Nov. 28, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 109 ft$^3$/s (3.09 m$^3$/s) at 1730 June 11, gage height, 2.80 ft (0.853 m), only peak above base of 90 ft$^3$/s (2.5 m$^3$/s); minimum daily, 0.30 ft$^3$/s (0.008 m$^3$/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .76 | .70 | .50 | .50 | .50 | .60 | .60 | 3.4 | 18 | 10 | 1.6 | .72 |
| 2 | .74 | .70 | .50 | .50 | .60 | .60 | .60 | 3.0 | 19 | 10 | 1.6 | .70 |
| 3 | .74 | .70 | .60 | .50 | .60 | .60 | .60 | 2.8 | 22 | 9.5 | 1.5 | .66 |
| 4 | .74 | .70 | .60 | .50 | .60 | .60 | .60 | 2.8 | 32 | 9.0 | 1.5 | .64 |
| 5 | .74 | .70 | .60 | .50 | .50 | .60 | .70 | 2.8 | 47 | 8.5 | 1.4 | .64 |
| 6 | .74 | .70 | .60 | .50 | .50 | .60 | .70 | 2.9 | 59 | 7.8 | 1.3 | .64 |
| 7 | .74 | .70 | .60 | .50 | .50 | .60 | .70 | 4.2 | 63 | 7.5 | 1.3 | .62 |
| 8 | .72 | .70 | .50 | .50 | .50 | .60 | .60 | 4.8 | 69 | 7.3 | 1.2 | .66 |
| 9 | .70 | .70 | .50 | .50 | .50 | .60 | .60 | 4.2 | 75 | 7.1 | 1.2 | 1.2 |
| 10 | .70 | .70 | .50 | .40 | .40 | .60 | .70 | 3.9 | 80 | 6.9 | 1.1 | 1.0 |
| 11 | .70 | .60 | .50 | .30 | .50 | .60 | .80 | 4.0 | 83 | 6.9 | 1.1 | 1.2 |
| 12 | .70 | .60 | .50 | .50 | .50 | .60 | .80 | 4.0 | 81 | 6.9 | .95 | .92 |
| 13 | .70 | .60 | .40 | .60 | .50 | .60 | .80 | 3.8 | 76 | 6.7 | .95 | .86 |
| 14 | .70 | .60 | .40 | .70 | .50 | .60 | .70 | 4.3 | 72 | 6.4 | .98 | .74 |
| 15 | .72 | .60 | .50 | .70 | .60 | .60 | .70 | 4.8 | 65 | 6.0 | 2.0 | .70 |
| 16 | .78 | .60 | .50 | .60 | .60 | .60 | .70 | 5.2 | 62 | 5.2 | 1.5 | .68 |
| 17 | .74 | .70 | .50 | .60 | .60 | .60 | .60 | 5.5 | 60 | 4.8 | 1.2 | .66 |
| 18 | .83 | .70 | .40 | .50 | .60 | .50 | .60 | 5.0 | 61 | 4.3 | 1.0 | .66 |
| 19 | .89 | .70 | .40 | .50 | .60 | .60 | .60 | 6.7 | 60 | 3.9 | .98 | .64 |
| 20 | .95 | .60 | .50 | .50 | .60 | .70 | .50 | 7.5 | 54 | 3.8 | .86 | .72 |
| 21 | .95 | .60 | .50 | .50 | .50 | .70 | .50 | 9.0 | 53 | 3.5 | .80 | .66 |
| 22 | .92 | .50 | .50 | .50 | .50 | .70 | .52 | 12 | 51 | 3.0 | .76 | .62 |
| 23 | .80 | .50 | .50 | .40 | .60 | .70 | 2.0 | 16 | 50 | 2.9 | .92 | .62 |
| 24 | .80 | .60 | .50 | .50 | .60 | .70 | 3.0 | 16 | 48 | 2.8 | .95 | .62 |
| 25 | .80 | .60 | .50 | .60 | .50 | .70 | 2.4 | 14 | 25 | 2.6 | 1.1 | .62 |
| 26 | .80 | .60 | .50 | .60 | .50 | .70 | 2.2 | 13 | 14 | 2.6 | 1.1 | .62 |
| 27 | .80 | .60 | .50 | .60 | .60 | .70 | 2.4 | 14 | 13 | 2.3 | .92 | .60 |
| 28 | .80 | .50 | .50 | .60 | .60 | .60 | 2.8 | 16 | 12 | 2.0 | .83 | .58 |
| 29 | .70 | .40 | .40 | .60 | .60 | .60 | 3.0 | 16 | 11 | 1.9 | .78 | .58 |
| 30 | .70 | .40 | .40 | .50 | --- | .60 | 3.2 | 17 | 11 | 1.9 | .76 | .56 |
| 31 | .70 | --- | .40 | .40 | --- | .60 | --- | 19 | --- | 1.7 | .74 | --- |
| TOTAL | 23.80 | 18.60 | 15.30 | 16.20 | 15.80 | 19.30 | 35.22 | 247.6 | 1446 | 165.7 | 34.88 | 21.34 |
| MEAN | .77 | .62 | .49 | .52 | .54 | .62 | 1.17 | 7.99 | 48.2 | 5.35 | 1.13 | .71 |
| MAX | .95 | .70 | .60 | .70 | .60 | .70 | 3.2 | 19 | 83 | 10 | 2.0 | 1.2 |
| MIN | .70 | .40 | .40 | .30 | .40 | .50 | .50 | 2.8 | 11 | 1.7 | .74 | .56 |
| AC-FT | 47 | 37 | 30 | 32 | 31 | 38 | 70 | 491 | 2870 | 329 | 69 | 42 |

CAL YR 1979 TOTAL 3391.27 MEAN 9.29 MAX 74 MIN .40 AC-FT 6730
WTR YR 1980 TOTAL 2059.74 MEAN 5.63 MAX 83 MIN .30 AC-FT 4090

NOTE.--NO GAGE-HEIGHT RECORD OCT. 30 TO APR. 21.

## 09074000 HUNTER CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°12'21", long 106°47'49", Pitkin County, Hydrologic Unit 14010004, on right bank 280 ft (85 m) upstream from headgate of Red Mountain ditch, 1.5 mi (2.4 km) upstream from mouth, and 1.5 mi (2.4 km) northeast of Aspen.

DRAINAGE AREA.--41.1 mi$^2$ (106.4 km$^2$).

PERIOD OF RECORD.--June 1950 to September 1956, September 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,610 ft (2,624 m), from topographic map. Prior to Sept. 1, 1969, at site 220 ft (67 m) downstream at different datum.

REMARKS.--Records good except for those for winter period, which are poor. Several small diversions above station for irrigation of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years (water years 1951-56, 1970-80), 49.6 ft$^3$/s (1.405 m$^3$/s), 35,940 acre-ft/yr (44.3 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,010 ft$^3$/s (28.6 m$^3$/s) June 13, 1953, gage height, 7.02 ft (2.140 m), site and datum then in use, from rating curve extended above 580 ft$^3$/s (16 m$^3$/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 520 ft$^3$/s (14.7 m$^3$/s) at 2130 June 12, gage height, 2.36 ft (0.179 m), only peak above base of 450 ft$^3$/s (13 m$^3$/s); minimum daily, 3.6 ft$^3$/s (0.102 m$^3$/s) Feb. 24, Mar. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.9 | 9.0 | 7.0 | 6.5 | 5.5 | 4.4 | 4.8 | 31 | 109 | 63 | 14 | 8.1 |
| 2 | 9.9 | 10 | 7.5 | 6.5 | 5.5 | 4.4 | 5.0 | 26 | 103 | 61 | 14 | 7.8 |
| 3 | 9.9 | 9.5 | 8.0 | 6.5 | 5.5 | 4.4 | 5.3 | 23 | 113 | 59 | 14 | 7.4 |
| 4 | 9.2 | 10 | 8.5 | 6.5 | 5.0 | 4.4 | 5.3 | 25 | 137 | 54 | 14 | 6.8 |
| 5 | 8.8 | 10 | 8.5 | 6.5 | 5.0 | 4.4 | 5.3 | 31 | 161 | 50 | 12 | 6.8 |
| 6 | 8.8 | 9.5 | 8.8 | 6.5 | 4.6 | 4.4 | 5.3 | 38 | 175 | 47 | 12 | 6.5 |
| 7 | 8.8 | 11 | 8.8 | 6.2 | 4.4 | 4.4 | 5.0 | 46 | 175 | 46 | 11 | 6.5 |
| 8 | 8.5 | 11 | 8.1 | 6.2 | 4.2 | 4.2 | 5.0 | 52 | 206 | 46 | 10 | 6.8 |
| 9 | 8.5 | 10 | 7.8 | 5.9 | 4.2 | 4.2 | 5.0 | 47 | 259 | 44 | 10 | 8.1 |
| 10 | 8.5 | 10 | 7.4 | 5.9 | 4.2 | 4.2 | 5.5 | 42 | 308 | 44 | 9.9 | 9.6 |
| 11 | 8.5 | 10 | 7.0 | 5.9 | 4.4 | 4.2 | 6.0 | 47 | 356 | 41 | 9.6 | 12 |
| 12 | 8.5 | 9.5 | 6.5 | 6.2 | 4.4 | 4.2 | 6.0 | 56 | 376 | 39 | 8.5 | 9.9 |
| 13 | 8.5 | 9.0 | 5.5 | 5.9 | 4.4 | 3.8 | 6.5 | 36 | 360 | 38 | 8.5 | 9.2 |
| 14 | 8.5 | 9.0 | 6.0 | 5.9 | 4.0 | 3.8 | 7.0 | 38 | 340 | 36 | 8.5 | 8.1 |
| 15 | 9.2 | 8.5 | 6.5 | 5.9 | 4.0 | 4.0 | 7.4 | 38 | 300 | 35 | 15 | 7.8 |
| 16 | 9.6 | 8.5 | 7.0 | 5.6 | 4.0 | 4.0 | 8.5 | 39 | 276 | 32 | 16 | 7.4 |
| 17 | 9.6 | 9.0 | 7.0 | 5.3 | 4.0 | 3.6 | 8.8 | 44 | 288 | 31 | 12 | 7.1 |
| 18 | 9.9 | 9.5 | 6.5 | 5.3 | 3.8 | 3.8 | 9.0 | 36 | 280 | 29 | 10 | 6.8 |
| 19 | 10 | 9.5 | 6.0 | 5.0 | 3.8 | 3.8 | 11 | 49 | 284 | 26 | 9.9 | 6.2 |
| 20 | 11 | 9.5 | 6.5 | 4.8 | 3.8 | 4.0 | 18 | 70 | 262 | 26 | 8.8 | 6.2 |
| 21 | 12 | 9.0 | 7.0 | 4.4 | 3.8 | 4.0 | 19 | 106 | 238 | 23 | 8.5 | 6.8 |
| 22 | 11 | 8.0 | 7.4 | 4.2 | 4.2 | 4.0 | 23 | 164 | 238 | 22 | 8.1 | 6.5 |
| 23 | 11 | 7.5 | 7.1 | 4.0 | 3.8 | 4.0 | 22 | 161 | 245 | 22 | 7.8 | 6.2 |
| 24 | 12 | 8.0 | 7.1 | 4.8 | 3.6 | 4.2 | 28 | 123 | 238 | 22 | 8.5 | 5.9 |
| 25 | 12 | 8.5 | 7.1 | 5.5 | 3.8 | 4.4 | 23 | 116 | 147 | 21 | 12 | 5.9 |
| 26 | 12 | 9.0 | 7.1 | 5.5 | 4.0 | 4.4 | 24 | 109 | 80 | 21 | 12 | 5.6 |
| 27 | 12 | 8.5 | 7.1 | 5.5 | 4.4 | 4.4 | 28 | 106 | 74 | 18 | 10 | 5.6 |
| 28 | 11 | 7.0 | 6.8 | 5.5 | 4.4 | 4.4 | 31 | 120 | 67 | 17 | 9.6 | 4.4 |
| 29 | 12 | 5.5 | 6.8 | 5.5 | 4.6 | 4.4 | 36 | 120 | 63 | 16 | 8.8 | 4.4 |
| 30 | 10 | 6.0 | 6.8 | 4.6 | --- | 4.4 | 38 | 106 | 63 | 16 | 8.5 | 4.4 |
| 31 | 9.5 | --- | 6.5 | 4.0 | --- | 4.4 | --- | 113 | --- | 15 | 8.5 | --- |
| TOTAL | 308.6 | 269.0 | 221.7 | 172.5 | 125.3 | 129.6 | 411.7 | 2158 | 6321 | 1060 | 330.0 | 210.8 |
| MEAN | 9.95 | 8.97 | 7.15 | 5.56 | 4.32 | 4.18 | 13.7 | 69.6 | 211 | 34.2 | 10.6 | 7.03 |
| MAX | 12 | 11 | 8.8 | 6.5 | 5.5 | 4.4 | 38 | 164 | 376 | 63 | 16 | 12 |
| MIN | 8.5 | 5.5 | 5.5 | 4.0 | 3.6 | 3.6 | 4.8 | 23 | 63 | 15 | 7.8 | 4.4 |
| AC-FT | 612 | 534 | 440 | 342 | 249 | 257 | 817 | 4280 | 12540 | 2100 | 655 | 418 |

CAL YR 1979 TOTAL 22858.2 MEAN 62.6 MAX 525 MIN 3.8 AC-FT 45340
WTR YR 1980 TOTAL 11719.2 MEAN 32.0 MAX 376 MIN 3.6 AC-FT 23240

## 09074800 CASTLE CREEK ABOVE ASPEN, CO

LOCATION.--Lat 39°05'15", long 106°48'42", Pitkin County, Hydrologic Unit 14010004, on right bank 0.4 mi (0.6 km) downstream from Forest Service bridge, 0.4 mi (0.6 km) upstream from Sandy Creek, and 7 mi (11 km) south of Aspen.

DRAINAGE AREA.--32.2 mi$^2$ (83.4 km$^2$).

PERIOD OF RECORD.--September 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,100 ft (2,774 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 39.0 ft$^3$/s (1.104 m$^3$.s), 28,260 acre-ft/yr (34.8 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 428 ft$^3$/s (12.1 m$^3$/s) June 14, 1973, gage height, 3.75 ft (1.143 m); maximum gage height, 3.88 ft (1.183 m) June 23, 1970; minimum daily discharge, 6.5 ft$^3$/s (0.18 m$^3$/s) Mar. 15, 25, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 372 ft$^3$/s (10.5 m$^3$/s) at 2100 June 10, gage-height, 3.66 ft (1.116 m), only peak above base of 200 ft$^3$/s (5.7 m$^3$/s); minimum daily, 7.4 ft$^3$/s (0.21 m$^3$/s) Apr. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 16 | 13 | 10 | 9.8 | 9.6 | 8.1 | 12 | 84 | 235 | 51 | 30 |
| 2 | 20 | 17 | 14 | 10 | 10 | 9.2 | 8.0 | 12 | 82 | 236 | 51 | 29 |
| 3 | 20 | 18 | 13 | 10 | 9.5 | 9.6 | 7.9 | 13 | 95 | 213 | 51 | 28 |
| 4 | 20 | 18 | 13 | 10 | 9.3 | 9.6 | 7.9 | 15 | 115 | 192 | 48 | 28 |
| 5 | 19 | 18 | 13 | 10 | 9.6 | 9.5 | 7.8 | 17 | 139 | 163 | 46 | 27 |
| 6 | 19 | 18 | 13 | 10 | 9.7 | 9.6 | 7.8 | 20 | 154 | 147 | 44 | 27 |
| 7 | 19 | 18 | 12 | 10 | 9.5 | 9.6 | 7.7 | 29 | 152 | 150 | 44 | 28 |
| 8 | 19 | 18 | 12 | 10 | 9.4 | 9.5 | 7.6 | 30 | 172 | 168 | 46 | 30 |
| 9 | 19 | 17 | 12 | 10 | 9.3 | 9.3 | 7.6 | 28 | 224 | 148 | 43 | 37 |
| 10 | 19 | 17 | 12 | 10 | 9.4 | 9.3 | 7.6 | 27 | 282 | 142 | 42 | 50 |
| 11 | 18 | 17 | 12 | 9.7 | 9.6 | 9.3 | 7.6 | 27 | 241 | 133 | 40 | 53 |
| 12 | 18 | 17 | 12 | 10 | 9.5 | 9.5 | 7.5 | 25 | 248 | 126 | 39 | 41 |
| 13 | 18 | 16 | 12 | 10 | 9.6 | 9.2 | 7.4 | 23 | 236 | 112 | 38 | 36 |
| 14 | 18 | 16 | 12 | 10 | 9.5 | 9.3 | 7.4 | 23 | 226 | 99 | 39 | 34 |
| 15 | 18 | 16 | 11 | 10 | 9.6 | 9.4 | 7.6 | 24 | 208 | 91 | 48 | 32 |
| 16 | 17 | 16 | 11 | 10 | 9.4 | 9.3 | 7.6 | 24 | 202 | 83 | 44 | 31 |
| 17 | 17 | 15 | 11 | 10 | 9.4 | 8.7 | 7.7 | 26 | 223 | 81 | 39 | 29 |
| 18 | 19 | 16 | 11 | 9.7 | 9.6 | 9.0 | 8.2 | 25 | 252 | 80 | 37 | 28 |
| 19 | 19 | 15 | 11 | 10 | 9.6 | 8.8 | 8.7 | 28 | 272 | 81 | 36 | 27 |
| 20 | 19 | 15 | 11 | 10 | 9.5 | 8.9 | 9.3 | 34 | 262 | 75 | 35 | 27 |
| 21 | 20 | 14 | 11 | 9.8 | 9.5 | 8.9 | 10 | 51 | 252 | 70 | 34 | 26 |
| 22 | 18 | 14 | 11 | 9.7 | 9.6 | 8.7 | 10 | 81 | 245 | 71 | 33 | 26 |
| 23 | 19 | 13 | 11 | 9.2 | 9.7 | 8.6 | 9.7 | 99 | 251 | 69 | 33 | 25 |
| 24 | 19 | 13 | 11 | 9.6 | 9.5 | 8.5 | 9.3 | 96 | 250 | 64 | 34 | 25 |
| 25 | 18 | 14 | 11 | 10 | 9.6 | 8.5 | 9.5 | 76 | 252 | 67 | 37 | 24 |
| 26 | 18 | 14 | 11 | 10 | 9.4 | 8.3 | 10 | 64 | 273 | 65 | 37 | 24 |
| 27 | 18 | 14 | 11 | 10 | 9.5 | 8.3 | 10 | 58 | 261 | 60 | 35 | 23 |
| 28 | 18 | 13 | 11 | 9.8 | 9.6 | 8.2 | 11 | 59 | 227 | 57 | 33 | 23 |
| 29 | 18 | 12 | 10 | 10 | 9.7 | 8.2 | 12 | 66 | 210 | 54 | 32 | 23 |
| 30 | 18 | 12 | 10 | 9.7 | --- | 8.0 | 13 | 70 | 235 | 56 | 31 | 22 |
| 31 | 17 | --- | 10 | 9.6 | --- | 7.9 | --- | 80 | --- | 54 | 31 | --- |
| TOTAL | 576 | 467 | 359 | 306.8 | 276.9 | 278.3 | 261.5 | 1262 | 6325 | 3442 | 1229 | 893 |
| MEAN | 18.6 | 15.6 | 11.6 | 9.90 | 9.55 | 8.98 | 8.72 | 40.7 | 211 | 111 | 39.6 | 29.8 |
| MAX | 20 | 18 | 14 | 10 | 10 | 9.6 | 13 | 99 | 282 | 236 | 51 | 53 |
| MIN | 17 | 12 | 10 | 9.2 | 9.3 | 7.9 | 7.4 | 12 | 82 | 54 | 31 | 22 |
| AC-FT | 1140 | 926 | 712 | 609 | 549 | 552 | 519 | 2500 | 12550 | 6830 | 2440 | 1770 |

CAL YR 1979 TOTAL 17179.9 MEAN 47.1 MAX 328 MIN 8.0 AC-FT 34080
WTR YR 1980 TOTAL 15676.5 MEAN 42.8 MAX 282 MIN 7.4 AC-FT 31090

## 09075700 MAROON CREEK ABOVE ASPEN, CO

LOCATION.--Lat 39°07'25", long 106°54'17", Pitkin County, Hydrologic Unit 14010004, on left bank 0.3 mi (0.5 km) upstream from Silver Queen Forest Service campground, 1.2 mi (1.9 km) downstream from confluence of East and West Maroon Creeks, and 7.2 mi (11.6 km) southwest of Aspen.

DRAINAGE AREA.--35.4 mi² (91.7 km²).

PERIOD OF RECORD.--September 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,720 ft (2,658 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Natural regulation by Maroon Lake. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 61.2 ft³/s (1.733 m³/s), 44,340 acre-ft/yr (54.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 836 ft³/s (23.7 m³/s) June 22, 1980, gage height, 3.39 ft (1.046 m), from rating curve extended above 350 ft³/s (9.9 m³/s); maximum gage height, 4.53 ft (1.381 m) Feb. 3, 1972 (backwater from ice); minimum daily discharge, 9.0 ft³/s (0.25 m³/s) Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 836 ft³/s (23.7 m³/s) at 2300 June 22, gage height, 3.39 ft (1.033 m), only peak above base of 250 ft³/s (7.1 m³/s); minimum daily, 13 ft³/s (0.37 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 40 | 26 | 20 | 17 | 16 | 17 | 15 | 25 | 130 | 249 | 125 | 65 |
| 2 | 39 | 26 | 20 | 17 | 16 | 17 | 15 | 26 | 133 | 268 | 121 | 63 |
| 3 | 39 | 26 | 20 | 17 | 16 | 17 | 16 | 26 | 144 | 279 | 118 | 61 |
| 4 | 38 | 25 | 20 | 17 | 16 | 16 | 16 | 26 | 165 | 305 | 116 | 59 |
| 5 | 37 | 25 | 20 | 17 | 16 | 16 | 17 | 28 | 194 | 243 | 111 | 60 |
| 6 | 37 | 25 | 20 | 17 | 16 | 15 | 16 | 29 | 216 | 186 | 105 | 59 |
| 7 | 36 | 25 | 19 | 17 | 15 | 16 | 15 | 32 | 227 | 220 | 106 | 57 |
| 8 | 36 | 25 | 19 | 17 | 15 | 16 | 15 | 32 | 230 | 264 | 104 | 58 |
| 9 | 36 | 25 | 19 | 17 | 14 | 16 | 16 | 34 | 277 | 252 | 100 | 58 |
| 10 | 36 | 25 | 18 | 16 | 15 | 16 | 16 | 34 | 295 | 246 | 99 | 62 |
| 11 | 35 | 25 | 18 | 13 | 16 | 16 | 15 | 34 | 335 | 243 | 96 | 66 |
| 12 | 35 | 24 | 17 | 16 | 16 | 16 | 16 | 33 | 387 | 240 | 92 | 63 |
| 13 | 35 | 24 | 16 | 17 | 17 | 15 | 16 | 32 | 437 | 230 | 91 | 59 |
| 14 | 33 | 24 | 18 | 19 | 18 | 16 | 17 | 33 | 445 | 223 | 92 | 57 |
| 15 | 33 | 23 | 18 | 19 | 18 | 17 | 17 | 33 | 405 | 214 | 102 | 56 |
| 16 | 33 | 23 | 18 | 18 | 17 | 16 | 17 | 33 | 388 | 210 | 98 | 55 |
| 17 | 33 | 22 | 18 | 16 | 17 | 15 | 17 | 34 | 374 | 203 | 91 | 54 |
| 18 | 33 | 22 | 17 | 16 | 16 | 16 | 17 | 33 | 379 | 198 | 85 | 53 |
| 19 | 32 | 22 | 17 | 15 | 16 | 16 | 18 | 34 | 416 | 201 | 82 | 51 |
| 20 | 33 | 22 | 18 | 15 | 16 | 17 | 19 | 36 | 407 | 188 | 92 | 51 |
| 21 | 31 | 21 | 18 | 15 | 16 | 18 | 20 | 40 | 439 | 174 | 78 | 50 |
| 22 | 31 | 20 | 18 | 14 | 16 | 17 | 21 | 50 | 482 | 174 | 75 | 49 |
| 23 | 30 | 20 | 17 | 14 | 16 | 16 | 21 | 88 | 409 | 169 | 73 | 49 |
| 24 | 30 | 21 | 16 | 16 | 16 | 16 | 20 | 106 | 374 | 161 | 74 | 50 |
| 25 | 30 | 22 | 18 | 17 | 15 | 16 | 21 | 93 | 396 | 159 | 75 | 49 |
| 26 | 29 | 22 | 18 | 17 | 16 | 16 | 21 | 88 | 388 | 147 | 78 | 48 |
| 27 | 29 | 21 | 18 | 17 | 17 | 16 | 22 | 91 | 451 | 144 | 72 | 48 |
| 28 | 28 | 20 | 17 | 17 | 18 | 16 | 22 | 106 | 429 | 139 | 69 | 48 |
| 29 | 28 | 17 | 16 | 16 | 18 | 15 | 24 | 123 | 285 | 141 | 67 | 47 |
| 30 | 27 | 19 | 16 | 16 | --- | 15 | 25 | 127 | 262 | 136 | 66 | 47 |
| 31 | 27 | --- | 17 | 15 | --- | 15 | --- | 130 | --- | 129 | 66 | --- |
| TOTAL | 1029 | 687 | 559 | 507 | 470 | 500 | 543 | 1669 | 9899 | 6335 | 2809 | 1652 |
| MEAN | 33.2 | 22.9 | 18.0 | 16.4 | 16.2 | 16.1 | 18.1 | 53.8 | 330 | 204 | 90.6 | 55.1 |
| MAX | 40 | 26 | 20 | 19 | 18 | 18 | 25 | 130 | 482 | 305 | 125 | 66 |
| MIN | 27 | 17 | 16 | 13 | 14 | 15 | 15 | 25 | 130 | 129 | 66 | 47 |
| AC-FT | 2040 | 1360 | 1110 | 1010 | 932 | 992 | 1080 | 3310 | 19630 | 12570 | 5570 | 3280 |

CAL YR 1979 TOTAL 26791.8 MEAN 73.4 MAX 373 MIN 9.8 AC-FT 53140
WTR YR 1980 TOTAL 26659.0 MEAN 72.8 MAX 482 MIN 13 AC-FT 52880

## 09076520 OWL CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°13'25", long 106°52'45", in NE¼SE¼ sec.33, T.9 S., R.85 W., Pitkin County, Hydrologic Unit 14010004, on left bank 1.2 mi (1.9 km) upstream from mouth and 3.8 mi (6.1 km) northwest of Aspen.

DRAINAGE AREA.--6.60 mi² (17.09 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder with V-notch concrete control. Altitude of gage is 7,870 ft (2,399 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Several small diversions above station for irrigation of hay meadows. Water imported above station, at times, from West Willow Creek through Willow and Owl ditches. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 2.15 ft³/s (0.061 m³/s), 1,560 acre-ft/yr (1.92 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft³/s (1.19 m³/s) May 25, 1979, gage height, 1.82 ft (0.555 m); maximum gage height, 1.95 ft (0.594 m) May 23, 1980; no flow Feb. 9 to Mar. 6, Sept. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31 ft³/s (0.88 m³/s) at 2100 May 23, gage height, 1.95 ft (0.594 m); minimum daily, 0.12 ft³/s (0.003 m³/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .38 | .32 | .22 | .18 | .18 | .18 | .17 | 16 | 19 | 1.1 | .48 | .16 |
| 2 | .35 | .25 | .24 | .18 | .19 | .17 | .18 | 14 | 18 | .95 | .45 | .16 |
| 3 | .32 | .30 | .26 | .18 | .19 | .17 | .18 | 15 | 18 | 1.1 | .43 | .15 |
| 4 | .32 | .27 | .24 | .18 | .18 | .18 | .18 | 16 | 17 | 1.5 | .38 | .15 |
| 5 | .30 | .27 | .24 | .18 | .18 | .18 | .20 | 17 | 17 | 1.2 | .35 | .14 |
| 6 | .30 | .25 | .24 | .19 | .19 | .17 | .22 | 18 | 16 | 1.2 | .32 | .14 |
| 7 | .32 | .27 | .22 | .19 | .18 | .17 | .26 | 20 | 15 | 1.2 | .30 | .12 |
| 8 | .32 | .38 | .22 | .19 | .18 | .18 | .30 | 20 | 14 | 1.8 | .27 | .16 |
| 9 | .30 | .38 | .22 | .19 | .18 | .18 | .36 | 21 | 14 | 2.6 | .25 | .30 |
| 10 | .25 | .38 | .22 | .19 | .17 | .17 | .40 | 21 | 12 | 1.2 | .32 | .30 |
| 11 | .25 | .35 | .22 | .19 | .17 | .17 | .40 | 23 | 7.2 | 1.4 | .32 | .32 |
| 12 | .25 | .35 | .22 | .19 | .17 | .17 | .48 | 22 | 5.1 | 1.4 | .27 | .30 |
| 13 | .27 | .32 | .22 | .19 | .17 | .17 | .48 | 18 | 3.1 | 1.5 | .27 | .22 |
| 14 | .27 | .30 | .22 | .19 | .17 | .17 | .80 | 17 | 2.0 | 1.5 | .27 | .21 |
| 15 | .27 | .30 | .20 | .19 | .17 | .17 | 1.6 | 17 | 2.0 | 1.5 | .68 | .21 |
| 16 | .27 | .30 | .20 | .19 | .17 | .17 | 2.4 | 17 | 1.8 | 1.8 | .48 | .19 |
| 17 | .27 | .28 | .20 | .19 | .17 | .16 | 3.4 | 18 | 1.7 | 1.8 | .35 | .16 |
| 18 | .32 | .28 | .20 | .19 | .17 | .17 | 4.4 | 17 | 1.6 | 1.8 | .27 | .16 |
| 19 | .30 | .30 | .22 | .19 | .17 | .18 | 5.0 | 16 | 1.5 | 1.5 | .30 | .15 |
| 20 | .32 | .28 | .22 | .19 | .17 | .20 | 6.0 | 18 | 1.4 | 1.2 | .27 | .15 |
| 21 | .43 | .28 | .22 | .19 | .17 | .22 | 7.0 | 22 | 1.8 | 1.1 | .27 | .19 |
| 22 | .40 | .26 | .22 | .18 | .17 | .22 | 7.7 | 26 | 2.9 | .88 | .18 | .21 |
| 23 | .40 | .26 | .20 | .18 | .17 | .20 | 8.4 | 29 | 3.4 | .61 | .16 | .19 |
| 24 | .45 | .28 | .20 | .18 | .17 | .20 | 9.6 | 29 | 3.7 | .82 | .18 | .19 |
| 25 | .40 | .28 | .20 | .18 | .17 | .20 | 10 | 25 | 2.0 | .75 | .30 | .19 |
| 26 | .38 | .26 | .20 | .19 | .17 | .19 | 11 | 23 | 1.2 | 1.1 | .35 | .19 |
| 27 | .40 | .26 | .20 | .19 | .17 | .18 | 12 | 20 | 1.1 | .88 | .22 | .19 |
| 28 | .32 | .26 | .20 | .19 | .18 | .18 | 12 | 20 | 1.1 | .68 | .21 | .19 |
| 29 | .32 | .24 | .20 | .19 | .18 | .17 | 14 | 21 | 1.0 | .61 | .21 | .19 |
| 30 | .32 | .22 | .18 | .19 | --- | .17 | 16 | 20 | 1.1 | .75 | .16 | .19 |
| 31 | .32 | --- | .18 | .18 | --- | .17 | --- | 19 | --- | .68 | .16 | --- |
| TOTAL | 10.09 | 8.73 | 6.64 | 5.79 | 5.07 | 5.58 | 135.11 | 615 | 206.7 | 38.11 | 9.43 | 5.77 |
| MEAN | .33 | .29 | .21 | .19 | .17 | .18 | 4.50 | 19.8 | 6.89 | 1.23 | .30 | .19 |
| MAX | .45 | .38 | .26 | .19 | .19 | .22 | 16 | 29 | 19 | 2.6 | .68 | .32 |
| MIN | .25 | .22 | .18 | .18 | .17 | .16 | .17 | 14 | 1.0 | .61 | .16 | .12 |
| AC-FT | 20 | 17 | 13 | 11 | 10 | 11 | 268 | 1220 | 410 | 76 | 19 | 11 |

CAL YR 1979 TOTAL 1406.82 MEAN 3.85 MAX 40 MIN .15 AC-FT 2790
WTR YR 1980 TOTAL 1052.02 MEAN 2.87 MAX 29 MIN .12 AC-FT 2090

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO APR. 8.

## 09077150 FRYINGPAN RIVER FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°14'42", long 106°31'47", Pitkin County, Hydrologic Unit 14010004, on right bank 210 ft (64 m) downstream from diversion point on Fryingpan River and 9.1 mi (14.6 km) southeast of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 9,955.91 ft (3,034.561 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good. This is a transmountain diversion from Marten Creek and Fryingpan River in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 269 ft³/s (7.62 m³/s) June 15, 1978; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 88 | 139 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 93 | 140 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 106 | 137 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 127 | 118 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 149 | 99 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 155 | 85 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 146 | 80 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.9 | 150 | 79 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.9 | 176 | 73 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.5 | 210 | 71 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.2 | 228 | 68 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.8 | 230 | 65 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.5 | 222 | 57 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.7 | 211 | 49 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.0 | 191 | 42 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.3 | 180 | 36 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.3 | 186 | 32 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.3 | 197 | 30 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.2 | 201 | 28 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | 193 | 26 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 27 | 186 | 20 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 49 | 185 | 16 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 72 | 188 | 12 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 83 | 186 | 8.0 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 74 | 184 | 3.5 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 62 | 187 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 60 | 185 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 73 | 156 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 75 | 131 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 70 | 133 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 84 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 770.60 | 5160 | 1513.50 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | 24.9 | 172 | 48.8 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 84 | 230 | 140 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 88 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1530 | 10230 | 3000 | .00 | .00 |

CAL YR 1979 TOTAL 9520.10 MEAN 26.1 MAX 235 MIN .00 AC-FT 18880
WTR YR 1980 TOTAL 7444.10 MEAN 20.3 MAX 230 MIN .00 AC-FT 14770

## 09077200 FRYINGPAN RIVER NEAR IVANHOE LAKE, CO

LOCATION.--Lat 39°14'42", long 106°31'50", Pitkin County, Hydrologic Unit 14010004, on left bank 100 ft (30 m) downstream from diversion dam, 2.0 mi (3.2 km) southwest of Ivanhoe Lake, and 9.1 mi (14.6 km) southeast of Norrie.

DRAINAGE AREA.--18.7 mi² (48.4 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,945 ft (3,031 m), from topographic map. Prior to May 15, 1967, at site 200 ft (61 m) downstream at different datum. May 16 to Aug. 24, 1967, at site 1,060 ft (320 m) downstream at datum 9,895.01 ft (3,015.999 m) Aug. 25, 1967, to Sept. 30, 1973, at site 1,100 ft (340 m) downstream at datum 9,892.49 ft (3,015.231 m) (Water and Power Resources Service bench mark).

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversion above station through Charles H. Boustead tunnel since May 16, 1972 (see station 09077150 for figures of diversion). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey

AVERAGE DISCHARGE.--8 years (water years 1964-71), 34.2 ft³/s (0.969 m³/s), 24,780 acre-ft/yr (30.6 hm³/yr), prior to diversion through Charles H. Boustead tunnel; 9 years (water years 1972-80), 10.3 ft³/s (0.292 m³/s), 7,460 acre-ft/yr (9.20 hm³/yr), subsequent to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 391 ft³/s (11.1 m³/s) June 22, 1965, gage height, 3.02 ft (0.920 m), site and datum then in use, from rating curve extended above 230 ft³/s (6.5 m³/s); maximum gage height, 4.62 ft (1.408 m) June 19, 1971; minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56 ft³/s (1.59 m³/s) at 100_ July 25, gage height, 1.66 ft (0.506 m); minimum daily, 2.5 ft³/s (0.071 m³/s) Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | 4.0 | 3.5 | 3.0 | 4.0 | 4.5 | 4.0 | 9.0 | 13 | 20 | 28 | 12 |
| 2 | 10 | 5.0 | 3.5 | 3.5 | 4.0 | 4.0 | 4.0 | 8.7 | 13 | 15 | 27 | 12 |
| 3 | 9.7 | 5.0 | 3.0 | 3.5 | 4.0 | 3.5 | 4.0 | 8.7 | 13 | 14 | 26 | 12 |
| 4 | 9.4 | 6.0 | 3.0 | 3.5 | 4.0 | 4.0 | 4.0 | 11 | 14 | 14 | 25 | 11 |
| 5 | 9.4 | 5.5 | 3.0 | 3.5 | 4.0 | 4.0 | 4.5 | 15 | 14 | 16 | 23 | 11 |
| 6 | 9.0 | 5.0 | 3.0 | 3.5 | 4.0 | 4.0 | 4.0 | 17 | 13 | 20 | 22 | 11 |
| 7 | 9.0 | 5.5 | 3.0 | 4.0 | 4.0 | 4.0 | 3.5 | 19 | 13 | 21 | 20 | 11 |
| 8 | 8.7 | 6.0 | 3.5 | 4.0 | 3.5 | 4.0 | 3.5 | 17 | 13 | 22 | 20 | 14 |
| 9 | 8.7 | 6.0 | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 12 | 13 | 23 | 20 | 16 |
| 10 | 8.4 | 6.0 | 3.5 | 4.0 | 3.5 | 3.5 | 4.5 | 13 | 14 | 23 | 18 | 15 |
| 11 | 8.4 | 5.5 | 4.0 | 3.5 | 3.5 | 4.0 | 4.0 | 13 | 14 | 23 | 18 | 16 |
| 12 | 8.4 | 5.0 | 3.5 | 3.5 | 3.5 | 4.0 | 3.5 | 13 | 14 | 23 | 17 | 14 |
| 13 | 8.4 | 5.0 | 3.5 | 4.0 | 3.5 | 3.5 | 3.5 | 13 | 14 | 23 | 17 | 14 |
| 14 | 8.7 | 5.5 | 4.0 | 4.5 | 3.0 | 3.5 | 4.0 | 13 | 13 | 22 | 18 | 13 |
| 15 | 8.4 | 5.5 | 4.0 | 4.5 | 3.5 | 3.5 | 4.5 | 14 | 12 | 22 | 31 | 12 |
| 16 | 7.1 | 5.5 | 3.5 | 5.0 | 3.5 | 4.0 | 5.0 | 14 | 12 | 24 | 22 | 12 |
| 17 | 6.5 | 5.5 | 3.5 | 5.0 | 3.5 | 4.0 | 5.5 | 14 | 13 | 25 | 18 | 12 |
| 18 | 7.4 | 6.0 | 3.0 | 5.0 | 4.0 | 4.5 | 6.0 | 13 | 13 | 25 | 17 | 11 |
| 19 | 6.8 | 6.0 | 3.0 | 5.0 | 4.0 | 4.0 | 6.5 | 14 | 13 | 25 | 16 | 11 |
| 20 | 6.8 | 6.0 | 3.5 | 5.0 | 4.0 | 4.0 | 7.0 | 15 | 13 | 25 | 16 | 12 |
| 21 | 6.8 | 5.5 | 3.5 | 5.0 | 4.0 | 4.0 | 8.0 | 15 | 13 | 27 | 15 | 11 |
| 22 | 7.4 | 5.5 | 3.5 | 4.5 | 4.0 | 4.5 | 9.0 | 16 | 13 | 30 | 14 | 10 |
| 23 | 8.4 | 5.5 | 4.0 | 4.0 | 4.0 | 4.5 | 9.0 | 15 | 13 | 32 | 15 | 10 |
| 24 | 8.1 | 6.0 | 3.5 | 4.0 | 4.5 | 4.5 | 8.0 | 15 | 13 | 34 | 16 | 10 |
| 25 | 6.2 | 6.0 | 3.5 | 4.0 | 4.5 | 5.0 | 7.5 | 14 | 13 | 39 | 18 | 10 |
| 26 | 5.9 | 6.0 | 3.5 | 4.5 | 4.5 | 5.0 | 8.0 | 14 | 14 | 39 | 16 | 9.7 |
| 27 | 5.9 | 5.5 | 3.5 | 4.5 | 4.5 | 5.0 | 8.5 | 14 | 14 | 36 | 14 | 9.7 |
| 28 | 5.1 | 4.0 | 3.5 | 4.5 | 4.5 | 5.0 | 9.5 | 14 | 17 | 33 | 14 | 9.4 |
| 29 | 5.1 | 3.5 | 3.0 | 4.5 | 4.5 | 4.5 | 11 | 14 | 23 | 31 | 13 | 9.4 |
| 30 | 5.0 | 3.5 | 2.5 | 4.0 | --- | 4.0 | 11 | 13 | 27 | 30 | 13 | 9.0 |
| 31 | 4.5 | --- | 3.0 | 4.0 | --- | 4.0 | --- | 14 | --- | 29 | 13 | --- |
| TOTAL | 237.6 | 160.5 | 105.0 | 129.0 | 114.0 | 128.5 | 179.0 | 425.4 | 424 | 785 | 580 | 350.2 |
| MEAN | 7.66 | 5.35 | 3.39 | 4.16 | 3.93 | 4.15 | 5.97 | 13.7 | 14.1 | 25.3 | 18.7 | 11.7 |
| MAX | 10 | 6.0 | 4.0 | 5.0 | 4.5 | 5.0 | 11 | 19 | 27 | 39 | 31 | 16 |
| MIN | 4.5 | 3.5 | 2.5 | 3.0 | 3.0 | 3.5 | 3.5 | 8.7 | 12 | 14 | 13 | 9.0 |
| AC-FT | 471 | 318 | 208 | 256 | 226 | 255 | 355 | 844 | 841 | 1560 | 1150 | 695 |

CAL YR 1979 TOTAL 3293.3 MEAN 9.02 MAX 39 MIN 1.5 AC-FT 6530
WTR YR 1980 TOTAL 3618.2 MEAN 9.89 MAX 39 MIN 2.5 AC-FT 7180

NOTE.--NO GAGE HEIGHT RECORD OCT. 30 TO APR. 28.

## 09077250 LILY PAD CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°15'32", long 106°32'15", Pitkin County, Hydrologic Unit 14010004, on left bank at concrete diversion structure, 200 ft (61 m) downstream from diversion point on Lily Pad Creek, and 7.7 mi (12.4 km) southwest of Norrie.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Datum of gage is 10,200.50 ft (3,109.112 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good. This a transmountain diversion from Lily Pad Creek in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 26 ft³/s (0.74 m³/s) June 11, 1980; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.9 | 6.6 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.5 | 5.9 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 10 | 4.9 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 12 | 3.8 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 3.0 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 15 | 2.6 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 15 | 2.3 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 15 | 2.2 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 19 | 1.8 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 1.6 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 26 | 1.5 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 25 | 1.5 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | 1.4 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 1.3 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 19 | .50 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 18 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 19 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 19 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 17 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .80 | 13 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.3 | 12 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.9 | 10 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.1 | 10 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.6 | 9.5 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.1 | 8.9 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.4 | 8.3 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.5 | 7.7 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.1 | 6.8 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.4 | 5.9 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 6.4 | 6.1 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 7.6 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 63.20 | 424.6 | 40.90 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | 2.04 | 14.2 | 1.32 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.6 | 26 | 6.6 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.9 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 125 | 842 | 81 | .00 | .00 |

CAL YR 1979 TOTAL 755.97 MEAN 2.07 MAX 25 MIN .00 AC-FT 1500
WTR YR 1980 TOTAL 528.70 MEAN 1.44 MAX 26 MIN .00 AC-FT 1050

## 09077605 IVANHOE CREEK FEEDER CANAL NEAR NAST, CO

LOCATION.--Lat 39°17'14", long 106°33'31", unsurveyed, Pitkin County, Hydrologic Unit 14010004, on left bank about 300 ft (91 m) downstream from diversion point on Ivanhoe Creek, 2.3 mi (3.7 km) east of Nast, and 5.8 mi (9.3 km) southeast of Norrie.

PERIOD OF RECORD.--April 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage, 10,004.00 ft (3,049.219 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 99 ft³/s (2.80 m³/s) June 27, 1979; no flow most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 52 | 13 | 1.2 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 47 | 15 | 1.2 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 51 | 10 | 1.2 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 55 | 8.2 | 1.2 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 66 | 6.7 | 1.2 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 61 | 5.4 | 1.2 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 56 | 4.9 | 1.2 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 62 | 4.4 | 1.1 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 4.9 | 74 | 3.4 | 1.1 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 13 | 88 | 3.0 | 1.1 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 15 | 82 | 2.6 | 1.1 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 15 | 79 | 2.2 | 1.1 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 13 | 65 | 2.0 | .92 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 10 | 55 | 1.9 | .92 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.2 | 48 | 1.9 | .92 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.6 | 45 | 1.9 | .92 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.7 | 43 | 1.7 | .79 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.5 | 43 | 1.7 | .79 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.2 | 39 | 1.5 | .67 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 32 | 1.5 | .67 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | 28 | 1.5 | .67 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 42 | 26 | 1.5 | .67 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 65 | 24 | 1.5 | .67 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 65 | 22 | 1.5 | .67 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 46 | 20 | 1.5 | .67 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 42 | 19 | 1.5 | .67 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 41 | 17 | 1.4 | .67 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 50 | 14 | 1.4 | .32 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 50 | 12 | 1.4 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 42 | 11 | 1.4 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 49 | --- | 1.4 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 638.10 | 1336 | 108.9 | 25.51 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | 20.6 | 44.5 | 3.51 | .82 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 65 | 88 | 15 | 1.2 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | 1.4 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1270 | 2650 | 216 | 51 | .00 |

CAL YR 1979 TOTAL 2971.74 MEAN 8.14 MAX 99 MIN .00 AC-FT 5890
WTR YR 1980 TOTAL 2108.51 MEAN 5.76 MAX 88 MIN .00 AC-FT 4180

## 09077610 IVANHOE CREEK NEAR NAST, CO

LOCATION.--Lat 39°17'13", long 106°33'31", unsurveyed, Pitkin County, Hydrologic Unit 14010004, on left bank 60 ft (18 m) upstream from culvert under Nast Tunnel, about 300 ft (91 m) downstream from diversion dam, 2.3 mi (3.7 km) east of Nast, and 5.8 mi (9.3 km) southeast of Norrie.

DRAINAGE AREA.--9.43 mi² (24.42 km²).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,980 ft (3,042 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station through Busk-Ivanhoe and Charles H. Bousted tunnels to Arkansas River basin (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--5 years, 1.50 ft³/s (0.042 m³/s), 1,090 acre-ft/yr (1.344 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55 ft³/s (1.56 m³/s) May 23, 1977, gage height, 2.13 ft (0.649 m); maximum gage height, 2.44 ft (0.744 m) May 8, 1979 (backwater from ice); minimum daily discharge, 0.18 ft³/s (0.005 m³/s) Oct. 17, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53 ft³/s (1.50 m³/s) at 1300 June 11, gage height, 2.12 ft (0.646 m); minimum daily, 0.20 ft³/s (0.006 m³/s) Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .26 | .40 | .50 | .40 | .50 | .50 | .50 | 1.7 | 2.7 | 2.4 | 1.2 | .29 |
| 2 | .26 | .60 | .50 | .40 | .50 | .40 | .50 | 1.6 | 3.3 | 2.5 | 1.2 | .29 |
| 3 | .22 | .60 | .40 | .40 | .50 | .50 | .50 | 1.5 | 3.1 | 2.3 | 1.1 | .26 |
| 4 | .22 | .80 | .40 | .40 | .50 | .50 | .50 | 1.7 | 3.3 | 2.2 | 1.2 | .26 |
| 5 | .22 | .70 | .40 | .40 | .50 | .50 | .70 | 2.0 | 3.6 | 2.1 | .98 | .22 |
| 6 | .22 | .70 | .40 | .40 | .50 | .50 | .60 | 2.4 | 3.6 | 2.0 | .92 | .22 |
| 7 | .22 | .80 | .40 | .40 | .50 | .50 | .50 | 2.6 | 3.3 | 2.1 | .86 | .26 |
| 8 | .22 | .80 | .50 | .50 | .50 | .50 | .40 | 2.8 | 3.3 | 2.2 | .80 | .32 |
| 9 | .22 | .80 | .50 | .50 | .60 | .50 | .50 | 2.4 | 4.4 | 2.2 | .80 | .74 |
| 10 | .22 | .80 | .40 | .50 | .50 | .40 | .60 | 2.3 | 5.5 | 2.1 | .74 | .74 |
| 11 | .22 | .70 | .50 | .50 | .50 | .50 | .50 | 2.6 | 9.2 | 2.1 | .74 | 1.4 |
| 12 | .22 | .70 | .40 | .40 | .50 | .50 | .40 | 2.5 | 4.7 | 2.1 | .68 | .74 |
| 13 | .22 | .60 | .40 | .40 | .50 | .40 | .40 | 2.2 | 4.2 | 2.0 | .68 | .74 |
| 14 | .22 | .70 | .50 | .50 | .40 | .40 | .50 | 2.1 | 4.7 | 2.9 | .74 | .50 |
| 15 | .26 | .70 | .50 | .50 | .40 | .50 | .50 | 2.0 | 4.6 | 2.7 | 1.7 | .46 |
| 16 | .26 | .70 | .50 | .60 | .40 | .50 | .60 | 2.1 | 4.4 | 2.4 | 1.2 | .43 |
| 17 | .26 | .70 | .40 | .60 | .40 | .50 | .60 | 2.2 | 4.4 | 2.3 | .80 | .40 |
| 18 | .29 | .80 | .40 | .70 | .50 | .60 | .70 | 2.0 | 4.7 | 2.1 | .56 | .40 |
| 19 | .36 | .80 | .30 | .70 | .50 | .50 | .80 | 2.4 | 4.7 | 2.0 | .46 | .36 |
| 20 | .36 | .80 | .40 | .70 | .50 | .50 | .90 | 2.8 | 4.0 | 1.8 | .43 | .56 |
| 21 | .56 | .70 | .40 | .70 | .50 | .50 | 1.2 | 3.3 | 3.6 | 1.7 | .40 | .50 |
| 22 | .50 | .70 | .40 | .60 | .50 | .60 | 1.4 | 3.3 | 3.4 | 1.7 | .36 | .43 |
| 23 | .46 | .70 | .40 | .50 | .50 | .60 | 1.4 | 3.2 | 3.1 | 1.6 | .36 | .43 |
| 24 | .62 | .80 | .40 | .60 | .60 | .60 | 1.2 | 2.8 | 3.0 | 1.6 | .50 | .40 |
| 25 | .62 | .80 | .40 | .60 | .60 | .70 | 1.0 | 2.5 | 2.8 | 1.6 | .86 | .40 |
| 26 | .80 | .80 | .40 | .60 | .60 | .70 | 1.1 | 2.5 | 2.8 | 1.5 | .68 | .40 |
| 27 | .74 | .70 | .40 | .60 | .60 | .70 | 1.3 | 2.7 | 2.8 | 1.4 | .43 | .36 |
| 28 | .56 | .50 | .40 | .60 | .60 | .70 | 1.5 | 3.1 | 2.5 | 1.4 | .40 | .36 |
| 29 | .60 | .50 | .30 | .60 | .60 | .60 | 1.7 | 2.7 | 2.4 | 1.3 | .32 | .36 |
| 30 | .50 | .50 | .20 | .50 | --- | .50 | 1.9 | 2.5 | 2.4 | 1.4 | .29 | .36 |
| 31 | .40 | --- | .30 | .50 | --- | .50 | --- | 2.7 | --- | 1.4 | .32 | --- |
| TOTAL | 11.31 | 20.90 | 12.70 | 16.30 | 14.80 | 16.40 | 24.90 | 75.2 | 114.5 | 61.1 | 22.71 | 13.59 |
| MEAN | .36 | .70 | .41 | .53 | .51 | .53 | .83 | 2.43 | 3.82 | 1.97 | .73 | .45 |
| MAX | .80 | .80 | .50 | .70 | .60 | .70 | 1.9 | 3.3 | 9.2 | 2.9 | 1.7 | 1.4 |
| MIN | .22 | .40 | .20 | .40 | .40 | .40 | .40 | 1.5 | 2.4 | 1.3 | .29 | .22 |
| AC-FT | 22 | 41 | 25 | 32 | 29 | 33 | 49 | 149 | 227 | 121 | 45 | 27 |

CAL YR 1979 TOTAL 494.83 MEAN 1.36 MAX 5.8 MIN .20 AC-FT 981
WTR YR 1980 TOTAL 404.41 MEAN 1.10 MAX 9.2 MIN .20 AC-FT 802

NOTE.--NO GAGE-HEIGHT RECORD OCT. 29 TO MAY 9.

## 09077750 SOUTH FORK FRYINGPAN RIVER FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°14'20", long 106°35'22", Pitkin County, Hydrologic Unit 14010004, on right bank 110 ft (34 m) downstream from diversion point on South Fork Fryingpan River and 7.2 mi (11.6 km) southeast of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 9,997.80 ft (3,047.329 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good. This is a transmountain diversion from South Fork Fryingpan River in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 188 ft³/s (5.32 m³/s) June 25, 1978; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 65 | 87 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 70 | 100 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 75 | 94 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 90 | 78 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 100 | 65 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 110 | 50 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 100 | 45 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 110 | 39 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 120 | 32 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 140 | 35 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 148 | 29 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 147 | 28 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 146 | 22 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 139 | 16 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 129 | 8.3 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 126 | 1.8 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 132 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.2 | 139 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.8 | 144 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.0 | 134 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 26 | 129 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 40 | 130 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 48 | 135 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 55 | 134 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 48 | 135 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 42 | 140 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 46 | 130 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 50 | 103 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 50 | 74 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 50 | 69 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 60 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 529.00 | 3543 | 730.10 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | 17.1 | 118 | 23.6 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 60 | 148 | 100 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 65 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1050 | 7030 | 1450 | .00 | .00 |

CAL YR 1979 TOTAL 6012.40 MEAN 16.5 MAX 160 MIN .00 AC-FT 11930
WTR YR 1980 TOTAL 4802.10 MEAN 13.1 MAX 148 MIN .00 AC-FT 9520

## 09077800 SOUTH FORK FRYINGPAN RIVER AT UPPER STATION, NEAR NORRIE, CO

LOCATION.--Lat 39°14'20", long 106°35'24", Pitkin County, Hydrologic Unit 14010004, on right bank 300 ft (91 m) downstream from diversion dam, 5.2 mi (8.4 km) upstream from mouth, and 7.2 mi (11.6 km) southeast of Norrie.

DRAINAGE AREA.--11.5 mi$^2$ (29.8 km$^2$).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,990 ft (3,045 m), from topographic map. Prior to Oct. 1, 1973, at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Transmountain diversion above station through Charles H. Boustead tunnel since May 16, 1972 (see station 09077750 for figures of diversion). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--8 years (water years 1964-71), 21.6 ft$^3$/s (0.612 m$^3$/s), 15,650 acre-ft/yr (19.3 hm$^3$/yr), prior to diversion through Charles H. Boustead tunnel; 9 years (water years 1972-80), 6.49 ft$^3$/s (0.184 m$^3$/s), 4,700 acre-ft/yr (5.80 hm$^3$/yr), subsequent to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 326 ft$^3$/s (9.23 m$^3$/s) June 24, 1971, gage height, 3.35 ft (1.021 m), site and datum then in use, from rating curve extended above 180 ft$^3$/s (5.1 m$^3$/s); maximum gage height, 4.40 ft (1.341 m) sometime during period Nov. 15, 1978 to May 21, 1979 (backwater from ice); minimum daily discharge, 0.5 ft$^3$/s (0.014 m$^3$/s) Dec. 22, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft$^3$/s (1.22 m$^3$/s) at 1900 June 30, gage height, 2.61 ft (0.796 m); minimum daily, 2.0 ft$^3$/s (0.057 m$^3$/s) Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.2 | 3.5 | 3.0 | 2.5 | 3.5 | 3.5 | 3.5 | 6.0 | 11 | 23 | 16 | 7.3 |
| 2 | 5.2 | 4.5 | 3.0 | 3.0 | 3.5 | 3.0 | 3.5 | 5.5 | 12 | 7.0 | 15 | 7.3 |
| 3 | 5.2 | 4.5 | 2.5 | 3.0 | 3.5 | 3.5 | 3.5 | 5.0 | 12 | 6.4 | 14 | 7.0 |
| 4 | 5.2 | 5.0 | 2.5 | 3.0 | 3.5 | 3.5 | 3.5 | 5.5 | 12 | 6.7 | 15 | 6.9 |
| 5 | 5.2 | 5.0 | 2.5 | 3.0 | 3.5 | 3.5 | 4.0 | 6.0 | 12 | 11 | 13 | 6.4 |
| 6 | 5.2 | 4.5 | 2.5 | 3.0 | 3.5 | 3.5 | 4.0 | 6.5 | 12 | 16 | 12 | 6.4 |
| 7 | 5.2 | 5.0 | 2.5 | 3.0 | 3.5 | 3.5 | 3.5 | 7.0 | 12 | 20 | 12 | 6.9 |
| 8 | 5.2 | 5.0 | 3.0 | 3.5 | 3.0 | 3.5 | 3.0 | 7.5 | 12 | 25 | 12 | 7.9 |
| 9 | 5.2 | 5.0 | 3.0 | 3.5 | 3.5 | 3.5 | 3.5 | 7.0 | 13 | 28 | 12 | 11 |
| 10 | 5.2 | 5.0 | 3.0 | 3.5 | 3.0 | 3.0 | 4.0 | 6.5 | 14 | 28 | 11 | 9.2 |
| 11 | 5.6 | 4.5 | 3.5 | 3.5 | 3.0 | 3.5 | 3.5 | 7.0 | 14 | 27 | 10 | 11 |
| 12 | 5.6 | 4.5 | 3.0 | 3.0 | 3.0 | 3.5 | 3.0 | 7.0 | 14 | 27 | 9.9 | 8.6 |
| 13 | 5.6 | 4.0 | 3.0 | 3.5 | 3.0 | 3.0 | 3.0 | 6.7 | 12 | 27 | 9.6 | 7.9 |
| 14 | 5.6 | 4.5 | 3.5 | 4.0 | 2.5 | 3.0 | 3.5 | 6.7 | 9.2 | 26 | 9.9 | 7.3 |
| 15 | 5.4 | 4.5 | 3.5 | 4.0 | 3.0 | 3.5 | 4.0 | 6.4 | 8.6 | 30 | 16 | 7.0 |
| 16 | 5.4 | 4.5 | 3.0 | 4.0 | 3.0 | 3.5 | 4.5 | 5.9 | 8.6 | 34 | 13 | 6.7 |
| 17 | 5.2 | 4.5 | 3.0 | 4.0 | 3.0 | 3.5 | 5.0 | 5.9 | 7.9 | 36 | 11 | 6.4 |
| 18 | 5.2 | 5.0 | 2.5 | 4.5 | 3.5 | 4.0 | 5.0 | 5.9 | 7.0 | 32 | 10 | 6.2 |
| 19 | 5.2 | 5.0 | 2.5 | 4.5 | 3.5 | 3.5 | 5.5 | 6.4 | 7.6 | 32 | 9.6 | 5.9 |
| 20 | 5.2 | 5.0 | 3.0 | 4.5 | 3.5 | 3.5 | 5.5 | 8.3 | 7.9 | 30 | 8.9 | 6.4 |
| 21 | 5.6 | 5.0 | 3.0 | 4.5 | 3.5 | 3.5 | 5.5 | 9.9 | 7.6 | 27 | 8.6 | 6.9 |
| 22 | 5.0 | 4.5 | 3.0 | 4.0 | 3.5 | 4.0 | 6.0 | 10 | 7.3 | 26 | 8.3 | 5.9 |
| 23 | 5.0 | 4.5 | 3.5 | 3.5 | 3.5 | 4.0 | 6.0 | 11 | 7.0 | 26 | 8.3 | 5.9 |
| 24 | 5.4 | 4.5 | 3.0 | 4.0 | 4.0 | 4.0 | 5.5 | 11 | 7.0 | 24 | 9.9 | 5.9 |
| 25 | 5.9 | 5.0 | 3.0 | 4.0 | 4.0 | 4.5 | 5.0 | 10 | 7.0 | 23 | 13 | 5.6 |
| 26 | 5.6 | 4.5 | 3.0 | 4.0 | 4.0 | 4.5 | 5.0 | 12 | 10 | 22 | 11 | 5.6 |
| 27 | 4.9 | 4.0 | 3.0 | 4.0 | 4.0 | 4.0 | 5.5 | 11 | 7.9 | 20 | 9.2 | 5.6 |
| 28 | 5.4 | 3.5 | 3.0 | 4.0 | 4.0 | 4.5 | 5.5 | 11 | 15 | 18 | 8.6 | 5.5 |
| 29 | 4.9 | 3.0 | 2.5 | 4.0 | 4.0 | 4.0 | 6.0 | 11 | 32 | 18 | 7.9 | 5.2 |
| 30 | 4.4 | 3.0 | 2.0 | 3.5 | --- | 3.5 | 6.5 | 11 | 40 | 17 | 7.6 | 5.2 |
| 31 | 4.0 | --- | 2.5 | 3.5 | --- | 3.5 | --- | 11 | --- | 16 | 7.6 | --- |
| TOTAL | 162.1 | 134.5 | 89.5 | 113.5 | 99.5 | 112.5 | 135.0 | 247.6 | 359.6 | 709.1 | 339.9 | 205.4 |
| MEAN | 5.23 | 4.48 | 2.89 | 3.66 | 3.43 | 3.63 | 4.50 | 7.99 | 12.0 | 22.9 | 11.0 | 6.85 |
| MAX | 5.9 | 5.0 | 3.5 | 4.5 | 4.0 | 4.5 | 6.5 | 12 | 40 | 36 | 16 | 11 |
| MIN | 4.0 | 3.0 | 2.0 | 2.5 | 2.5 | 3.0 | 3.0 | 5.0 | 7.0 | 6.4 | 7.6 | 5.2 |
| AC-FT | 322 | 267 | 178 | 225 | 197 | 223 | 268 | 491 | 713 | 1410 | 674 | 407 |

CAL YR 1979 TOTAL 2253.3 MEAN 6.17 MAX 35 MIN 1.0 AC-FT 4470
WTR YR 1980 TOTAL 2708.2 MEAN 7.40 MAX 40 MIN 2.0 AC-FT 5370

NOTE.--NO GAGE-HEIGHT RECORD NOV. 1 TO MAY 12.

## 09077940 CHAPMAN GULCH FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°14'47", long 106°37'45", Pitkin County, Hydrologic Unit 14010004, on right bank 180 ft (55 m) downstream from diversion point on Chapman Gulch and 4.9 mi (7.9 km) south of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 10,032.50 ft (3,057.936 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good. This is a transmountain diversion from Chapman Gulch and Sawyer Creek Feeder Canal in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 239 ft³/s (6.77 m³/s) June 5, 1980; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 146 | 178 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 144 | 184 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 177 | 160 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 222 | 131 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 239 | 111 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 224 | 90 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 200 | 84 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 204 | 83 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 228 | 71 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 237 | 75 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 214 | 66 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 186 | 63 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 167 | 49 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 155 | 37 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 143 | 28 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 136 | 22 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 135 | 20 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 141 | 18 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 146 | 16 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .61 | 133 | 12 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 25 | 127 | 7.0 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 76 | 129 | 4.2 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 123 | 130 | 3.4 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 145 | 129 | 2.3 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 101 | 133 | .62 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 73 | 173 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 91 | 216 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 121 | 193 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 121 | 167 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 107 | 177 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 142 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1125.61 | 5151 | 1515.52 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | 36.3 | 172 | 48.9 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 145 | 239 | 184 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 127 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2230 | 10220 | 3010 | .00 | .00 |

CAL YR 1979 TOTAL 4754.70 MEAN 13.0 MAX 129 MIN .00 AC-FT 9430
WTR YR 1980 TOTAL 7792.13 MEAN 21.3 MAX 239 MIN .00 AC-FT 15460

## 09077945 CHAPMAN GULCH NEAR NAST, CO

LOCATION.--Lat 39°15'51", long 106°37'54", Pitkin County, Hydrologic Unit 14010004, on left bank 700 ft (210 m) downstream from Chapman diversion tunnel, 2.5 mi (4.0 km) northwest of Nast, 3.3 mi (5.3 km) upstream from mouth, and 4.3 mi (6.9 km) south of Norrie.

DRAINAGE AREA.--5.96 mi$^2$ (15.44 km$^2$).

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR-CO-79-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 9,982.76 ft (3,042.745 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Transmountain diversion above station to Charles H. Boustead tunnel by Chapman Gulch feeder canal (station 09077940). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--8 years, 3.17 ft$^3$/s (0.090 m$^3$/s), 2,300 acre-ft/yr (2.84 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53 ft$^3$/s (1.50 m$^3$/s) July 24, 1977, gage height, 3.36 ft (1.024 m); minimum daily, 0.20 ft$^3$/s (0.006 m$^3$/s) Dec. 22, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40 ft$^3$/s (1.13 m$^3$/s) at 2100 June 26, gage height, 3.18 ft (0.969 m); minimum daily, 0.50 ft$^3$/s (0.014 m$^3$/s) Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.4 | 2.5 | 1.0 | .70 | 1.4 | 1.5 | 1.5 | 3.5 | 4.4 | 5.8 | 8.2 | 3.7 |
| 2 | 3.4 | 2.5 | 1.0 | .80 | 1.4 | 1.3 | 1.5 | 3.0 | 4.3 | 4.1 | 8.2 | 3.5 |
| 3 | 3.3 | 2.5 | .80 | .80 | 1.4 | 1.4 | 1.5 | 3.0 | 4.6 | 3.9 | 8.0 | 3.5 |
| 4 | 3.2 | 3.0 | .80 | .80 | 1.4 | 1.4 | 1.5 | 3.0 | 4.1 | 3.8 | 7.7 | 3.3 |
| 5 | 3.2 | 2.5 | .80 | .80 | 1.4 | 1.4 | 1.7 | 3.5 | 4.1 | 3.7 | 7.1 | 3.3 |
| 6 | 3.2 | 2.0 | .80 | .90 | 1.4 | 1.4 | 1.6 | 3.5 | 4.5 | 6.1 | 6.5 | 3.3 |
| 7 | 3.2 | 2.5 | .80 | .90 | 1.4 | 1.4 | 1.5 | 4.0 | 4.3 | 7.9 | 6.5 | 3.3 |
| 8 | 3.2 | 2.5 | 1.0 | 1.0 | 1.3 | 1.4 | 1.4 | 5.7 | 3.9 | 7.9 | 6.4 | 3.8 |
| 9 | 3.0 | 2.5 | 1.0 | 1.0 | 1.5 | 1.4 | 1.5 | 3.7 | 3.8 | 7.9 | 6.3 | 4.3 |
| 10 | 2.9 | 2.5 | .80 | 1.0 | 1.4 | 1.3 | 1.7 | 3.6 | 3.8 | 7.9 | 5.7 | 4.9 |
| 11 | 2.9 | 2.5 | 1.0 | .90 | 1.4 | 1.4 | 1.5 | 4.1 | 3.7 | 7.9 | 5.2 | 5.7 |
| 12 | 2.9 | 2.0 | .90 | .80 | 1.5 | 1.4 | 1.4 | 4.0 | 3.6 | 7.9 | 5.1 | 4.6 |
| 13 | 2.6 | 2.0 | .90 | 1.0 | 1.4 | 1.3 | 1.4 | 3.5 | 3.5 | 7.7 | 5.1 | 4.0 |
| 14 | 2.8 | 2.0 | 1.0 | 1.2 | 1.2 | 1.3 | 1.7 | 3.5 | 2.9 | 7.4 | 5.5 | 3.7 |
| 15 | 2.8 | 2.0 | 1.0 | 1.3 | 1.3 | 1.4 | 2.0 | 3.3 | 3.4 | 7.4 | 10 | 3.5 |
| 16 | 2.8 | 2.5 | .90 | 1.4 | 1.3 | 1.4 | 2.5 | 3.4 | 3.8 | 7.3 | 7.0 | 3.4 |
| 17 | 2.7 | 2.5 | .80 | 1.4 | 1.3 | 1.4 | 2.5 | 3.3 | 4.8 | 7.1 | 5.5 | 3.3 |
| 18 | 2.9 | 2.5 | .70 | 1.5 | 1.4 | 1.5 | 2.5 | 3.3 | 5.1 | 6.8 | 4.9 | 3.2 |
| 19 | 2.9 | 2.5 | .60 | 1.6 | 1.4 | 1.4 | 3.0 | 4.1 | 4.8 | 7.1 | 4.6 | 3.0 |
| 20 | 3.2 | 2.5 | .80 | 1.5 | 1.4 | 1.4 | 3.0 | 8.7 | 4.7 | 7.3 | 4.5 | 3.7 |
| 21 | 3.1 | 2.5 | .80 | 1.5 | 1.4 | 1.4 | 3.2 | 7.3 | 4.6 | 8.4 | 4.2 | 3.2 |
| 22 | 2.6 | 2.5 | .80 | 1.4 | 1.4 | 1.5 | 3.5 | 3.7 | 4.6 | 9.4 | 4.1 | 3.1 |
| 23 | 2.9 | 2.5 | .90 | 1.3 | 1.4 | 1.5 | 3.5 | 4.0 | 4.6 | 9.2 | 4.2 | 3.0 |
| 24 | 3.0 | 2.5 | .80 | 1.4 | 1.5 | 1.5 | 3.0 | 4.2 | 4.7 | 8.8 | 5.0 | 3.0 |
| 25 | 2.9 | 2.5 | .80 | 1.4 | 1.5 | 1.6 | 2.5 | 3.9 | 5.7 | 9.5 | 6.3 | 2.9 |
| 26 | 3.0 | 2.5 | .80 | 1.5 | 1.5 | 1.6 | 3.0 | 3.8 | 9.9 | 9.9 | 5.2 | 2.9 |
| 27 | 2.8 | 2.0 | .80 | 1.5 | 1.5 | 1.5 | 3.0 | 3.8 | 4.1 | 9.4 | 4.6 | 2.8 |
| 28 | 3.0 | 1.5 | .80 | 1.5 | 1.5 | 1.6 | 3.5 | 4.1 | 6.2 | 8.8 | 4.2 | 2.8 |
| 29 | 2.6 | 1.0 | .70 | 1.5 | 1.6 | 1.6 | 3.5 | 4.1 | 7.9 | 8.7 | 4.0 | 2.8 |
| 30 | 2.6 | 1.0 | .50 | 1.4 | --- | 1.5 | 4.0 | 4.1 | 8.0 | 8.8 | 3.9 | 2.8 |
| 31 | 2.5 | --- | .60 | 1.3 | --- | 1.5 | --- | 4.4 | --- | 8.4 | 3.8 | --- |
| TOTAL | 91.7 | 68.5 | 25.70 | 37.00 | 40.9 | 44.6 | 69.6 | 125.1 | 142.4 | 232.2 | 177.5 | 104.3 |
| MEAN | 2.96 | 2.28 | .83 | 1.19 | 1.41 | 1.44 | 2.32 | 4.04 | 4.75 | 7.49 | 5.73 | 3.48 |
| MAX | 3.4 | 3.0 | 1.0 | 1.6 | 1.6 | 1.6 | 4.0 | 8.7 | 9.9 | 9.9 | 10 | 5.7 |
| MIN | 2.5 | 1.0 | .50 | .70 | 1.2 | 1.3 | 1.4 | 3.0 | 2.9 | 3.7 | 3.8 | 2.8 |
| AC-FT | 182 | 136 | 51 | 73 | 81 | 88 | 138 | 248 | 282 | 461 | 352 | 207 |

CAL YR 1979 TOTAL 1007.10 MEAN 2.76 MAX 15 MIN .40 AC-FT 2000
WTR YR 1980 TOTAL 1159.50 MEAN 3.17 MAX 10 MIN .50 AC-FT 2300

NOTE.--NO GAGE-HEIGHT RECORD NOV. 1 TO MAY 7.

## 09077960 SAWYER CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°15'44", long 106°37'39", Pitkin County, Hydrologic Unit 14010004, on left bank 3,100 ft (940 m) downstream from diversion point on Sawyer Creek and 4.9 mi (7.9 km) south of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 10,047.00 ft (3,062.326 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good. This is a transmountain diversion from Sawyer Creek in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is diverted to Chapman Gulch and is rediverted by Chapman Gulch feeder canal. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 37 ft$^3$/s (1.05 m$^3$/s) June 24, 25, 1978; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.6 | 13 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.9 | 19 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | 18 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 15 | 16 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 18 | 13 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 11 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 10 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 9.7 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 27 | 9.0 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 32 | 8.4 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 35 | 8.0 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 35 | 7.5 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 35 | 6.7 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 33 | 2.6 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 30 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 29 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 30 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 33 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 34 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 32 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.3 | 29 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.3 | 29 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 4.3 | 29 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 4.2 | 29 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 4.1 | 28 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 4.0 | 28 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 4.7 | 16 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.7 | 6.1 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.7 | 5.8 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 6.6 | 5.8 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 7.8 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 51.70 | 717.2 | 151.90 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | 1.67 | 23.9 | 4.90 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.8 | 35 | 19 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.8 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 103 | 1420 | 301 | .00 | .00 |

CAL YR 1979 TOTAL 1238.80 MEAN 3.39 MAX 36 MIN .00 AC-FT 2460
WTR YR 1980 TOTAL 920.80 MEAN 2.52 MAX 35 MIN .00 AC-FT 1830

## 09078000 FRYINGPAN RIVER AT NORRIE, CO

LOCATION.--Lat 39°19'51", long 106°39'27", in NE¼NE¼ sec.28, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on right bank 200 ft (61 m) west of county road at Norrie, 1.2 mi (1.9 km) upstream from North Fork, and 2.1 mi (3.4 km) downstream from Chapman Gulch.

DRAINAGE AREA.--90.6 mi$^2$ (234.7 km$^2$).

PERIOD OF RECORD.--October 1910 to March 1917, October 1947 to current year. Prior to October 1960, published as Fryingpan Creek at Norrie.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,410 ft (2,563 m), from topographic map. February 1911 to March 1917, nonrecording gages at site 200 ft (61 m) upstream at different datums.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1911-16, 1947-71), 123 ft$^3$/s (3.483 m$^3$/s) 89,110 acre-ft/yr (110 hm$^3$/yr), prior to diversion through Charles H. Boustead tunnel; 9 years (water years 1972-80), 57.9 ft$^3$/s (1.640 m$^3$/s), 41,950 acre-ft/yr (51.7 hm$^3$/yr), subsequent to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft$^3$/s (50.4 m$^3$/s) June 30, 1957, gage height, 5.37 ft (1.637 m); maximum gage height, 5.55 ft (1.692 m) June 28, 1957; minimum daily discharge, 8.0 ft$^3$/s (0.23 m$^3$/s) Dec. 26, 1962, but may have been less during periods of no gage-height record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 467 ft$^3$/s (13.2 m$^3$/s) at 0200 June 11, gage height, 3.47 ft (1.058 m); minimum daily, 11 ft$^3$/s (0.31 m$^3$/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 19 | 16 | 14 | 15 | 15 | 20 | 16 | 87 | 179 | 159 | 60 | 25 |
| 2 | 19 | 18 | 16 | 15 | 17 | 19 | 16 | 77 | 172 | 106 | 58 | 24 |
| 3 | 19 | 17 | 17 | 15 | 17 | 19 | 15 | 77 | 182 | 90 | 56 | 24 |
| 4 | 19 | 18 | 18 | 16 | 17 | 19 | 15 | 92 | 196 | 79 | 58 | 25 |
| 5 | 19 | 18 | 19 | 15 | 17 | 19 | 15 | 119 | 214 | 76 | 52 | 24 |
| 6 | 19 | 18 | 19 | 15 | 18 | 19 | 15 | 135 | 221 | 85 | 47 | 25 |
| 7 | 19 | 19 | 18 | 14 | 17 | 19 | 15 | 150 | 207 | 92 | 45 | 24 |
| 8 | 18 | 19 | 18 | 14 | 16 | 19 | 15 | 168 | 204 | 99 | 45 | 26 |
| 9 | 18 | 19 | 17 | 14 | 16 | 18 | 16 | 138 | 232 | 103 | 45 | 40 |
| 10 | 18 | 19 | 16 | 14 | 16 | 17 | 16 | 135 | 274 | 101 | 41 | 34 |
| 11 | 18 | 18 | 17 | 11 | 16 | 17 | 16 | 162 | 318 | 101 | 40 | 48 |
| 12 | 18 | 17 | 15 | 16 | 15 | 18 | 16 | 150 | 290 | 94 | 36 | 36 |
| 13 | 18 | 17 | 13 | 18 | 16 | 17 | 16 | 106 | 260 | 87 | 36 | 34 |
| 14 | 18 | 16 | 14 | 20 | 17 | 17 | 17 | 103 | 235 | 85 | 37 | 30 |
| 15 | 18 | 16 | 15 | 20 | 18 | 18 | 18 | 99 | 218 | 92 | 62 | 28 |
| 16 | 18 | 16 | 15 | 18 | 17 | 17 | 18 | 101 | 200 | 96 | 59 | 26 |
| 17 | 18 | 16 | 15 | 17 | 17 | 17 | 22 | 103 | 196 | 94 | 41 | 24 |
| 18 | 19 | 17 | 14 | 16 | 17 | 18 | 28 | 87 | 196 | 90 | 36 | 24 |
| 19 | 20 | 18 | 14 | 15 | 17 | 17 | 38 | 103 | 196 | 83 | 35 | 26 |
| 20 | 22 | 19 | 15 | 15 | 16 | 17 | 51 | 135 | 186 | 79 | 36 | 30 |
| 21 | 26 | 18 | 16 | 14 | 16 | 16 | 72 | 179 | 172 | 77 | 34 | 28 |
| 22 | 22 | 17 | 16 | 13 | 17 | 16 | 85 | 224 | 165 | 81 | 31 | 26 |
| 23 | 20 | 17 | 16 | 12 | 17 | 16 | 79 | 256 | 159 | 83 | 30 | 26 |
| 24 | 20 | 18 | 15 | 14 | 16 | 16 | 60 | 238 | 156 | 83 | 36 | 28 |
| 25 | 19 | 19 | 16 | 18 | 15 | 16 | 52 | 204 | 138 | 85 | 47 | 24 |
| 26 | 20 | 19 | 16 | 17 | 16 | 16 | 59 | 179 | 141 | 87 | 40 | 24 |
| 27 | 19 | 17 | 16 | 17 | 18 | 15 | 66 | 176 | 150 | 79 | 32 | 22 |
| 28 | 19 | 14 | 14 | 17 | 19 | 15 | 76 | 193 | 147 | 72 | 29 | 22 |
| 29 | 19 | 12 | 12 | 17 | 20 | 15 | 87 | 186 | 159 | 68 | 27 | 22 |
| 30 | 18 | 13 | 12 | 15 | --- | 16 | 101 | 168 | 182 | 68 | 27 | 22 |
| 31 | 15 | --- | 13 | 12 | --- | 16 | --- | 179 | --- | 66 | 28 | --- |
| TOTAL | 591 | 515 | 481 | 479 | 486 | 534 | 1131 | 4509 | 5945 | 2740 | 1286 | 821 |
| MEAN | 19.1 | 17.2 | 15.5 | 15.5 | 16.8 | 17.2 | 37.7 | 145 | 198 | 88.4 | 41.5 | 27.4 |
| MAX | 26 | 19 | 19 | 20 | 20 | 20 | 101 | 256 | 318 | 159 | 62 | 48 |
| MIN | 15 | 12 | 12 | 11 | 15 | 15 | 15 | 77 | 138 | 66 | 27 | 22 |
| AC-FT | 1170 | 1020 | 954 | 950 | 964 | 1060 | 2240 | 8940 | 11790 | 5430 | 2550 | 1630 |

CAL YR 1979 TOTAL 22641 MEAN 62.0 MAX 334 MIN 12 AC-FT 44910
WTR YR 1980 TOTAL 19518 MEAN 53.3 MAX 318 MIN 11 AC-FT 38710

NOTE.--NO GAGE-HEIGHT RECORD DEC. 23 TO FEB. 4, FEB. 10 TO MAR. 11.

## 07078050 MORMON CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°21'20", long 106°32'00", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.5 mi (0.8 km) upstream from unnamed tributary, 1.0 mi (1.6 km) upstream from Carter Creek, and 6.8 mi (10.9 km) northeast of Norrie.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,090 ft (3,075 m) from topographic map.

REMARKS.--Records good. This is a transmountain diversion from Mormon Creek in the Roaring Fork River basin through Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

COOPERATION.--Records collected by Water and Power Resources Service, computed by Colorado Division of Water Resources, and reviewed by U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 78 ft³/s (2.21 m³/s) June 10, 1980; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 25 | 35 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 23 | 35 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 31 | 30 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 40 | 24 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 46 | 20 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 44 | 17 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 41 | 16 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 45 | 15 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 62 | 13 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 78 | 12 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 68 | 11 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 59 | 9.7 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 57 | 8.2 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 55 | 7.2 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 49 | 6.1 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 46 | 5.0 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 47 | 2.0 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 50 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 55 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 48 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 46 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 47 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 47 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 46 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 46 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 46 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 44 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 36 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.1 | 32 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 19 | 33 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 23 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 50.10 | 1392 | 266.20 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | 1.62 | 46.4 | 8.59 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 23 | 78 | 35 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 23 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 99 | 2760 | 528 | .00 | .00 |

WTR YR 1980 TOTAL 1708.30 MEAN 4.67 MAX 78 MIN .00 AC-FT 3390

## 09078100 NORTH FORK FRYINGPAN RIVER ABOVE CUNNINGHAM CREEK, NEAR NORRIE, CO

LOCATION.--Lat 39°21'32", long 106°34'04", Pitkin County, Hydrologic Unit 14010004, on left bank 1.7 mi (2.7 km) upstream from Cunningham Creek and 5.5 mi (8.8 km) east of Norrie.

DRAINAGE AREA.--12.0 mi² (31.1 km²).

PERIOD OF RECORD.--October 1963 to September 1980 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 9,420 ft (2,871 m), from topographic map.

REMARKS.--Records good except those for winter period, and those for period of no gage-height record, which are poor. Transmountain diversion above station to Arkansas River basin through Charles H. Boustead Tunnel since June 4, 1979. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years (water years 1964-78), 20.2 ft³/s (0.572 m³/s), 14,630 acre-ft/yr (18.0 hm³/yr), prior to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 381 ft³/s (10.8 m³/s) July 4, 1975, gage height, 4.07 ft (1.241 m); maximum gage height recorded, 4.24 ft (1.292 m) Apr. 22, 1965 (backwater from ice); minimum daily discharge, 0.40 ft³/s (0.011 m³/s) Feb. 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 186 ft³/s (5.27 m³/s) May 23, gage height, 3.33 ft (1.015 m); minimum daily, 0.50 ft³/s (0.014 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.4 | 1.0 | .70 | .70 | .70 | .90 | .90 | 28 | 55 | 14 | 8.2 | 2.3 |
| 2 | 1.3 | .90 | .80 | .70 | .80 | .90 | .90 | 24 | 55 | 14 | 7.5 | 2.0 |
| 3 | 1.3 | 1.0 | .80 | .70 | .80 | .90 | .90 | 26 | 60 | 13 | 7.2 | 1.9 |
| 4 | 1.2 | 1.0 | .80 | .70 | .70 | .80 | .90 | 28 | 66 | 12 | 6.9 | 1.8 |
| 5 | 1.2 | .90 | .90 | .70 | .70 | .80 | .90 | 30 | 54 | 11 | 6.0 | 1.8 |
| 6 | 1.1 | 1.0 | .80 | .70 | .70 | .90 | .90 | 32 | 45 | 11 | 5.8 | 1.8 |
| 7 | 1.1 | 1.0 | .80 | .70 | .70 | .90 | .90 | 34 | 37 | 10 | 5.5 | 1.9 |
| 8 | 1.1 | 1.0 | .80 | .70 | .70 | .90 | .90 | 32 | 37 | 10 | 5.3 | 2.2 |
| 9 | 1.1 | 1.0 | .80 | .70 | .60 | .80 | 1.0 | 25 | 43 | 9.5 | 4.9 | 3.4 |
| 10 | .99 | 1.0 | .80 | .60 | .60 | .80 | 1.1 | 23 | 49 | 9.2 | 4.4 | 3.7 |
| 11 | .99 | .90 | .70 | .50 | .60 | .80 | 1.1 | 28 | 57 | 8.8 | 4.0 | 8.2 |
| 12 | .99 | .90 | .60 | .80 | .70 | .80 | 1.1 | 38 | 54 | 8.8 | 3.8 | 5.5 |
| 13 | .92 | .90 | .60 | .90 | .70 | .80 | 1.1 | 36 | 46 | 8.5 | 3.8 | 4.7 |
| 14 | .92 | .90 | .60 | 1.0 | .70 | .80 | 1.2 | 32 | 40 | 8.5 | 3.8 | 4.0 |
| 15 | .99 | .90 | .70 | 1.0 | .80 | .90 | 1.7 | 32 | 34 | 8.8 | 6.2 | 3.5 |
| 16 | .99 | .90 | .70 | .80 | .80 | .90 | 2.0 | 32 | 30 | 8.5 | 7.5 | 3.4 |
| 17 | .99 | 1.0 | .60 | .80 | .80 | .90 | 2.4 | 32 | 29 | 9.5 | 5.3 | 3.0 |
| 18 | 1.1 | 1.0 | .60 | .70 | .80 | .80 | 2.4 | 28 | 30 | 14 | 4.2 | 2.7 |
| 19 | 1.2 | 1.0 | .60 | .70 | .80 | .80 | 2.6 | 34 | 29 | 18 | 4.0 | 2.7 |
| 20 | 1.2 | .90 | .70 | .70 | .80 | .90 | 2.8 | 46 | 26 | 18 | 3.8 | 3.2 |
| 21 | 1.2 | .80 | .70 | .70 | .80 | 1.0 | 3.4 | 60 | 24 | 14 | 3.0 | 3.0 |
| 22 | 1.2 | .70 | .80 | .60 | .80 | 1.1 | 5.0 | 70 | 23 | 14 | 2.9 | 2.7 |
| 23 | 1.2 | .80 | .70 | .60 | .80 | 1.0 | 8.0 | 85 | 22 | 14 | 2.7 | 2.6 |
| 24 | 1.1 | .80 | .70 | .70 | .80 | 1.0 | 11 | 70 | 20 | 12 | 3.0 | 2.3 |
| 25 | 1.1 | .90 | .70 | .80 | .70 | 1.0 | 15 | 65 | 20 | 12 | 4.4 | 2.2 |
| 26 | 1.1 | .80 | .70 | .80 | .70 | 1.0 | 18 | 60 | 19 | 11 | 5.1 | 2.2 |
| 27 | 1.1 | .70 | .70 | .80 | .80 | .90 | 20 | 55 | 18 | 9.9 | 4.2 | 2.0 |
| 28 | 1.1 | .60 | .70 | .80 | .80 | .90 | 24 | 60 | 16 | 9.5 | 3.4 | 1.9 |
| 29 | 1.1 | .60 | .60 | .80 | .90 | .80 | 26 | 60 | 14 | 8.8 | 3.0 | 1.8 |
| 30 | 1.0 | .60 | .60 | .80 | --- | .80 | 30 | 55 | 14 | 9.9 | 2.7 | 1.8 |
| 31 | .90 | --- | .70 | .60 | --- | .90 | --- | 60 | --- | 9.5 | 2.6 | --- |
| TOTAL | 34.18 | 26.40 | 22.06 | 22.80 | 21.60 | 27.40 | 188.10 | 1320 | 1066 | 349.7 | 145.1 | 86.2 |
| MEAN | 1.10 | .88 | .71 | .74 | .74 | .88 | 6.27 | 42.6 | 35.5 | 11.3 | 4.68 | 2.87 |
| MAX | 1.4 | 1.0 | .90 | 1.0 | .90 | 1.1 | 30 | 85 | 66 | 18 | 8.2 | 8.2 |
| MIN | .90 | .60 | .60 | .50 | .60 | .80 | .90 | 23 | 14 | 8.5 | 2.6 | 1.8 |
| AC-FT | 68 | 52 | 44 | 45 | 43 | 54 | 373 | 2620 | 2110 | 694 | 288 | 171 |

CAL YR 1979 TOTAL 6735.02 MEAN 18.5 MAX 208 MIN .60 AC-FT 13360
WTR YR 1980 TOTAL 3309.48 MEAN 9.04 MAX 85 MIN .50 AC-FT 6560

NOTE.--NO GAGE-HEIGHT RECORD OCT. 30 TO APR. 19.

## 09078140 CUNNINGHAM CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°20'12", long 106°32'31", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.8 mi (1.29 km) upstream from Middle Cunningham Creek, 6.2 mi (10.0 km) east of Norrie.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,100 ft (3,078 m) from topographic map.

REMARKS.--Records good. This is a transmountain diversion from Cunningham Creek in the Roaring Fork basin through the Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

COOPERATION.--Records collected by Water and Power Resources Service, computed by Colorado Division of Water Resources, and reviewed by U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 70 ft³/s (1.98 m³/s) June 10, 1980; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 15 | 23 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 19 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 17 | 16 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 13 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 26 | 10 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 23 | 8.2 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 7.1 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 26 | 7.1 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 49 | 6.1 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 70 | 5.5 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 66 | 4.9 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 30 | 4.3 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 3.8 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 3.0 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 20 | 2.4 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 1.8 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 23 | .66 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 25 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 39 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 25 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 28 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 29 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 30 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 37 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 35 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 30 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.3 | 20 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 17 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 12 | 18 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 15 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 47.30 | 844 | 135.86 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | 1.53 | 28.1 | 4.38 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 15 | 70 | 23 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 94 | 1670 | 269 | .00 | .00 |

WTR YR 1980 TOTAL 1027.16 MEAN 2.81 MAX 70 MIN .00 AC-FT 2040

## 09078150 MIDDLE CUNNINGHAM CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°19'43", long 106°33'06", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.4 mi (0.6 km) upstream from Cunningham Creek, 5.7 mi (9.2 km) east of Norrie.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,050 ft (3,063 m) from topographic map.

REMARKS.--Records good. This is a transmountain diversion from Middle Cunningham Creek in the Roaring Fork River basin through Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

COOPERATION.--Records collected by Water and Power Resources Service, computed by Colorado Division of Water Resources, and reviewed by U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 40 ft³/s (1.13 m³/s) June 12, 1980; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 13 | 21 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 14 | 21 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 17 | 17 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 14 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 26 | 11 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 26 | 9.3 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 25 | 8.4 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 27 | 7.6 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 34 | 6.7 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 39 | 5.9 | .00 | .00 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 37 | 5.4 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 40 | 4.6 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 39 | 3.9 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 37 | 3.0 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 34 | 2.2 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 32 | 1.7 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 34 | .60 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 38 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 39 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 35 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 33 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 33 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.2 | 33 | .00 | .00 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.7 | 31 | .00 | .00 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.8 | 31 | .00 | .00 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.8 | 31 | .00 | .00 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 7.2 | 29 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.9 | 24 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 10 | 21 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 9.5 | 21 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 12 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 78.10 | 895 | 143.30 | .00 | .00 |
| MEAN | .000 | .000 | .000 | .000 | .000 | .000 | .000 | 2.52 | 29.8 | 4.62 | .000 | .000 |
| MAX | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 12 | 40 | 21 | .00 | .00 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 13 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 155 | 1780 | 284 | .00 | .00 |

WTR YR 1980 TOTAL 1116.40 MEAN 3.05 MAX 40 MIN .00 AC-FT 2210

## 09078200 CUNNINGHAM CREEK NEAR NORRIE, CO

LOCATION.--Lat 39°20'03", long 106°34'29", Pitkin County, Hydrologic Unit 14010004, on left bank 0.4 mi (0.6 km) upstream from unnamed tributary, 1.5 mi (2.4 km) upstream from mouth, and 4.5 mi (7.2 km) east of Norrie.

DRAINAGE AREA.--7.12 mi² (18.44 km²).

PERIOD OF RECORD.--October 1963 to September 1980 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 9,550 ft (2,911 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Transmountain diversion above station to Arkansas River basin through Charles H. Boustead Tunnel since June 4, 1979. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years (water years 1964-78), 10.8 ft³/s (0.306 m³/s), 7,820 acre-ft/yr (9.64 hm³/yr), prior to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 335 ft³/s (9.49 m³/s) July 4, 1975, gage height, 2.89 ft (0.881 m), from rating curve extended above 160 ft³/s (4.5 m³/s); maximum gage height, 5.29 ft (1.612 m) Apr. 21, 1980 (backwater from ice); minimum daily discharge, 0.10 ft³/s (0.003 m³/s) Feb. 16, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 75 ft³/s (2.12 m³/s) at 2300 June 10, gage height, 2.13 ft (0.649 m); maximum gage height, 5.29 ft (1.612 m) Apr. 21, 1980 (backwater from ice); minimum daily discharge, 0.30 ft³/s (0.008 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .60 | .60 | .40 | .50 | .60 | .70 | .60 | 7.5 | 17 | 9.4 | 2.3 | 1.1 |
| 2 | .50 | .60 | .50 | .50 | .60 | .60 | .60 | 6.3 | 17 | 8.4 | 2.2 | 1.0 |
| 3 | .50 | .60 | .60 | .50 | .60 | .60 | .60 | 6.1 | 21 | 7.2 | 2.1 | 1.0 |
| 4 | .45 | .60 | .60 | .50 | .60 | .60 | .60 | 6.7 | 24 | 6.5 | 2.0 | .95 |
| 5 | .45 | .60 | .50 | .50 | .50 | .60 | .70 | 8.1 | 29 | 6.1 | 1.8 | .95 |
| 6 | .45 | .70 | .60 | .50 | .50 | .60 | .70 | 12 | 28 | 5.8 | 1.8 | .95 |
| 7 | .45 | .70 | .50 | .50 | .50 | .60 | .70 | 14 | 27 | 5.6 | 1.7 | .95 |
| 8 | .45 | .70 | .50 | .50 | .50 | .60 | .70 | 15 | 28 | 5.6 | 1.6 | 1.2 |
| 9 | .45 | .70 | .50 | .50 | .40 | .60 | .80 | 12 | 33 | 5.4 | 1.6 | 1.7 |
| 10 | .45 | .60 | .50 | .40 | .50 | .60 | .80 | 10 | 42 | 5.2 | 1.5 | 2.4 |
| 11 | .45 | .60 | .50 | .30 | .50 | .60 | .80 | 14 | 47 | 5.4 | 1.3 | 3.3 |
| 12 | .45 | .60 | .40 | .50 | .50 | .60 | .80 | 17 | 41 | 5.4 | 1.3 | 2.1 |
| 13 | .45 | .60 | .40 | .70 | .50 | .60 | 1.0 | 9.4 | 40 | 5.0 | 1.2 | 1.9 |
| 14 | .45 | .60 | .50 | .70 | .60 | .70 | 1.2 | 8.4 | 34 | 4.8 | 1.3 | 1.6 |
| 15 | .45 | .60 | .50 | .60 | .60 | .70 | 1.4 | 7.8 | 28 | 4.8 | 2.6 | 1.5 |
| 16 | .45 | .60 | .50 | .60 | .60 | .60 | 1.8 | 8.1 | 23 | 4.6 | 2.2 | 1.4 |
| 17 | .45 | .60 | .50 | .50 | .60 | .60 | 2.0 | 7.8 | 21 | 5.4 | 1.8 | 1.3 |
| 18 | .55 | .60 | .40 | .50 | .60 | .60 | 2.4 | 7.5 | 23 | 5.8 | 1.6 | 1.2 |
| 19 | .55 | .60 | .40 | .50 | .60 | .70 | 3.0 | 11 | 23 | 5.4 | 1.4 | 1.2 |
| 20 | .60 | .60 | .50 | .50 | .50 | .70 | 4.0 | 15 | 18 | 5.0 | 1.3 | 1.8 |
| 21 | .70 | .50 | .50 | .50 | .60 | .80 | 5.0 | 25 | 16 | 4.6 | 1.2 | 1.4 |
| 22 | .70 | .50 | .50 | .40 | .60 | .80 | 5.5 | 47 | 14 | 4.5 | 1.2 | 1.3 |
| 23 | .70 | .50 | .50 | .50 | .60 | .70 | 6.0 | 53 | 14 | 4.4 | 1.2 | 1.3 |
| 24 | .70 | .60 | .50 | .60 | .50 | .70 | 5.5 | 48 | 14 | 4.2 | 1.7 | 1.3 |
| 25 | .70 | .60 | .50 | .60 | .50 | .70 | 5.0 | 42 | 13 | 4.0 | 2.3 | 1.3 |
| 26 | .70 | .50 | .50 | .60 | .60 | .70 | 5.0 | 33 | 12 | 3.8 | 2.1 | 1.2 |
| 27 | .70 | .50 | .50 | .60 | .60 | .70 | 5.5 | 30 | 9.7 | 3.4 | 1.6 | 1.2 |
| 28 | .70 | .40 | .50 | .60 | .70 | .60 | 6.0 | 31 | 8.8 | 3.7 | 1.4 | 1.1 |
| 29 | .60 | .40 | .40 | .50 | .70 | .60 | 7.0 | 17 | 8.4 | 2.6 | 1.2 | 1.0 |
| 30 | .60 | .40 | .40 | .50 | --- | .60 | 7.5 | 14 | 8.8 | 2.6 | 1.2 | 1.0 |
| 31 | .60 | --- | .50 | .50 | --- | .60 | --- | 17 | --- | 2.5 | 1.2 | --- |
| TOTAL | 17.00 | 17.30 | 15.20 | 16.20 | 16.30 | 20.00 | 83.20 | 560.7 | 682.7 | 157.1 | 50.9 | 41.60 |
| MEAN | .55 | .58 | .49 | .52 | .56 | .65 | 2.77 | 18.1 | 22.8 | 5.07 | 1.64 | 1.39 |
| MAX | .70 | .70 | .60 | .70 | .70 | .80 | 7.5 | 53 | 47 | 9.4 | 2.6 | 3.3 |
| MIN | .45 | .40 | .40 | .30 | .40 | .60 | .60 | 6.1 | 8.4 | 2.5 | 1.2 | .95 |
| AC-FT | 34 | 34 | 30 | 32 | 32 | 40 | 165 | 1110 | 1350 | 312 | 101 | 83 |

CAL YR 1979 TOTAL 2633.21 MEAN 7.21 MAX 77 MIN .40 AC-FT 5220
WTR YR 1980 TOTAL 1678.20 MEAN 4.59 MAX 53 MIN .30 AC-FT 3330

NOTE.--NO GAGE-HEIGHT RECORD OCT. 28 TO APR. 20.

## 09078500 NORTH FORK FRYINGPAN RIVER NEAR NORRIE, CO

LOCATION.--Lat 39°20'34", long 106°39'55", in SE¼NW¼ sec.21, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on left bank 800 ft (240 m) upstream from bridge on county road, 0.4 mi (0.6 km) upstream from mouth, 0.5 mi (3.3 km) downstream from Last Chance Creek, and 1.3 mi (2.1 km) northwest of Norrie.

DRAINAGE AREA.--42.0 mi² (108.8 km²).

PERIOD OF RECORD.--October 1910 to March 1917, October 1947 to current year. Prior to October 1960, published as North Fork Fryingpan Creek near Norrie.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,330 ft (2,539 m), from topographic map. Feb. 18, 1911, to Mar. 31, 1917, nonrecording gage at site 10 ft (3 m) downstream at different datum. Oct. 1, 1947, to Sept. 30, 1949, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are poor. One small diversion bypasses station for domestic use and irrigation of pasture. Low flow slightly regulated since 1968 by small recreation reservoir 2.0 mi (3.2 km) upstream. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--39 years (water years 1911-16, 1948-80), 50.6 ft³/s (1.433 m³/s), 36,660 acre-ft/yr (45.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft³/s (37.4 m³/s) June 6, 1958, gage height, 4.98 ft (1.518 m), from rating curve extended above 700 ft³/s (20 m³/s); maximum gage height, 5.80 ft (1.768 m) May 21, 1943 (present datum); minimum daily discharge, 0.5 ft³/s (0.014 m³/s) Nov. 1, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 343 ft³/s (9.71 m³/s) at 2200 May 23, gage height, 4.43 ft (1.350 m); minimum daily, 2.1 ft³/s (0.059 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.8 | 3.0 | 4.5 | 3.5 | 4.0 | 4.5 | 4.5 | 63 | 154 | 67 | 16 | 4.6 |
| 2 | 3.4 | 4.0 | 4.5 | 3.5 | 4.0 | 4.0 | 4.5 | 58 | 147 | 69 | 15 | 4.3 |
| 3 | 3.2 | 4.0 | 4.5 | 3.5 | 4.0 | 4.5 | 4.5 | 56 | 170 | 62 | 14 | 3.7 |
| 4 | 3.1 | 4.5 | 4.5 | 3.5 | 4.0 | 4.5 | 4.5 | 62 | 200 | 54 | 13 | 3.2 |
| 5 | 3.2 | 4.5 | 4.5 | 3.5 | 4.0 | 4.5 | 5.0 | 76 | 194 | 47 | 12 | 3.1 |
| 6 | 3.1 | 4.0 | 4.5 | 4.0 | 4.0 | 4.5 | 4.5 | 95 | 194 | 43 | 11 | 3.1 |
| 7 | 3.0 | 4.5 | 4.5 | 4.0 | 4.0 | 4.5 | 4.0 | 104 | 175 | 41 | 10 | 3.2 |
| 8 | 3.0 | 4.5 | 5.0 | 4.5 | 3.5 | 4.5 | 3.5 | 109 | 178 | 39 | 10 | 4.3 |
| 9 | 2.8 | 4.5 | 5.0 | 4.5 | 4.0 | 4.5 | 4.0 | 92 | 200 | 37 | 9.3 | 7.3 |
| 10 | 2.8 | 4.5 | 5.0 | 4.5 | 3.5 | 4.0 | 4.5 | 85 | 218 | 34 | 8.9 | 5.6 |
| 11 | 2.8 | 4.0 | 5.0 | 4.0 | 3.5 | 4.5 | 4.0 | 98 | 265 | 34 | 7.7 | 14 |
| 12 | 2.9 | 3.5 | 4.5 | 3.5 | 4.0 | 4.0 | 3.5 | 98 | 252 | 37 | 7.3 | 10 |
| 13 | 2.6 | 3.5 | 4.5 | 4.0 | 3.5 | 4.0 | 3.5 | 73 | 231 | 31 | 6.9 | 8.7 |
| 14 | 2.6 | 4.0 | 4.5 | 4.5 | 3.0 | 4.0 | 4.0 | 66 | 200 | 29 | 7.1 | 6.9 |
| 15 | 2.8 | 4.0 | 4.5 | 5.0 | 3.5 | 4.5 | 5.0 | 63 | 172 | 27 | 12 | 5.2 |
| 16 | 3.1 | 4.5 | 4.5 | 5.0 | 3.5 | 4.5 | 7.0 | 68 | 156 | 25 | 16 | 4.8 |
| 17 | 3.0 | 5.0 | 4.0 | 5.0 | 3.5 | 4.5 | 10 | 69 | 144 | 25 | 11 | 4.4 |
| 18 | 3.7 | 5.5 | 4.0 | 5.5 | 4.0 | 5.0 | 15 | 62 | 147 | 29 | 9.1 | 3.8 |
| 19 | 4.0 | 5.5 | 3.5 | 5.5 | 4.0 | 4.5 | 20 | 76 | 149 | 36 | 7.9 | 3.1 |
| 20 | 4.3 | 5.5 | 4.0 | 5.0 | 4.0 | 4.5 | 30 | 92 | 133 | 34 | 7.1 | 3.7 |
| 21 | 5.9 | 5.0 | 4.0 | 5.0 | 4.0 | 4.5 | 45 | 135 | 124 | 28 | 6.3 | 4.3 |
| 22 | 4.3 | 5.0 | 4.0 | 4.5 | 4.0 | 5.0 | 60 | 214 | 119 | 27 | 5.5 | 3.4 |
| 23 | 4.4 | 5.0 | 4.5 | 4.0 | 4.0 | 5.0 | 60 | 295 | 112 | 27 | 5.7 | 3.2 |
| 24 | 5.4 | 5.0 | 4.0 | 4.0 | 4.5 | 5.0 | 50 | 270 | 105 | 24 | 6.7 | 3.1 |
| 25 | 5.0 | 5.5 | 4.0 | 4.5 | 4.5 | 5.5 | 43 | 197 | 99 | 23 | 9.5 | 3.0 |
| 26 | 5.0 | 5.5 | 4.0 | 4.5 | 4.5 | 5.5 | 48 | 161 | 95 | 22 | 11 | 2.8 |
| 27 | 4.9 | 5.0 | 4.0 | 4.5 | 4.5 | 5.0 | 52 | 149 | 89 | 19 | 9.1 | 2.5 |
| 28 | 3.8 | 4.5 | 4.0 | 4.5 | 4.5 | 5.5 | 58 | 175 | 78 | 18 | 7.5 | 2.4 |
| 29 | 4.3 | 4.5 | 3.5 | 4.5 | 4.5 | 5.0 | 66 | 167 | 69 | 17 | 6.3 | 2.3 |
| 30 | 3.7 | 4.5 | 3.0 | 4.0 | --- | 4.5 | 74 | 129 | 68 | 19 | 5.7 | 2.1 |
| 31 | 3.2 | --- | 3.0 | 3.5 | --- | 4.5 | --- | 149 | --- | 18 | 5.5 | --- |
| TOTAL | 113.0 | 136.5 | 131.5 | 133.5 | 114.5 | 143.0 | 701.5 | 3606 | 4637 | 1042 | 290.1 | 136.1 |
| MEAN | 3.65 | 4.55 | 4.24 | 4.31 | 3.95 | 4.61 | 23.4 | 116 | 155 | 33.6 | 9.36 | 4.54 |
| MAX | 5.9 | 5.5 | 5.0 | 5.5 | 4.5 | 5.5 | 74 | 295 | 265 | 69 | 16 | 14 |
| MIN | 2.6 | 3.0 | 3.0 | 3.5 | 3.0 | 4.0 | 3.5 | 56 | 68 | 17 | 5.5 | 2.1 |
| AC-FT | 224 | 271 | 261 | 265 | 227 | 284 | 1390 | 7150 | 9200 | 2070 | 575 | 270 |

CAL YR 1979 TOTAL 20491.7 MEAN 56.1 MAX 484 MIN 1.5 AC-FT 40650
WTR YR 1980 TOTAL 11184.7 MEAN 30.6 MAX 295 MIN 2.1 AC-FT 22180

NOTE.--NO GAGE-HEIGHT RECORD NOV. 1 TO APR. 30.

## 09078600 FRYINGPAN RIVER NEAR THOMASVILLE, CO

LOCATION.--Lat 39°20'41", long 106°40'23", in NW¼NW¼ sec.21, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on right bank 400 ft (120 m) upstream from private bridge, 400 ft (120 m) downstream from North Fork, 1.6 mi (2.6 km) southeast of Thomasville, and 1.7 mi (2.7 km) northwest of Norrie.

DRAINAGE AREA.--134 mi² (347 km²).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,210 ft (2,502 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--5 years, 81.4 ft³/s (2.305 m³/s), 58,970 acre-ft/yr (72.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,060 ft³/s (30.02 m³/s) June 16, 1978, gage height, 3.94 ft (1.201 m); minimum daily, 10 ft³/s (0.28 m³/s) Nov. 28, 1976, Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 781 ft³/s (22.1 m³/s) at 0100 June 11, gage height, 3.60 ft (1.097 m); minimum daily, 15 ft³/s (0.42 m³/s) Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 33 | 20 | 19 | 17 | 23 | 24 | 23 | 163 | 344 | 215 | 78 | 34 |
| 2 | 32 | 27 | 19 | 18 | 23 | 22 | 23 | 147 | 334 | 179 | 75 | 33 |
| 3 | 30 | 26 | 18 | 18 | 23 | 23 | 23 | 142 | 371 | 153 | 72 | 33 |
| 4 | 29 | 32 | 18 | 18 | 23 | 23 | 23 | 160 | 411 | 136 | 74 | 33 |
| 5 | 29 | 29 | 18 | 18 | 23 | 23 | 25 | 200 | 417 | 125 | 67 | 32 |
| 6 | 28 | 26 | 18 | 19 | 23 | 23 | 24 | 236 | 430 | 128 | 61 | 32 |
| 7 | 28 | 30 | 18 | 19 | 23 | 23 | 23 | 253 | 394 | 130 | 57 | 32 |
| 8 | 27 | 31 | 19 | 20 | 23 | 23 | 22 | 275 | 394 | 136 | 57 | 36 |
| 9 | 26 | 31 | 19 | 20 | 24 | 23 | 23 | 232 | 436 | 133 | 56 | 57 |
| 10 | 26 | 29 | 18 | 20 | 23 | 22 | 25 | 215 | 487 | 128 | 51 | 49 |
| 11 | 28 | 28 | 20 | 19 | 23 | 23 | 23 | 253 | 585 | 128 | 48 | 75 |
| 12 | 28 | 26 | 19 | 18 | 24 | 23 | 22 | 248 | 550 | 130 | 47 | 57 |
| 13 | 28 | 23 | 19 | 20 | 23 | 22 | 22 | 186 | 494 | 120 | 44 | 50 |
| 14 | 28 | 27 | 20 | 22 | 21 | 22 | 26 | 176 | 442 | 115 | 48 | 45 |
| 15 | 28 | 27 | 20 | 23 | 22 | 23 | 30 | 166 | 400 | 117 | 77 | 41 |
| 16 | 28 | 28 | 19 | 24 | 22 | 23 | 33 | 176 | 355 | 120 | 82 | 38 |
| 17 | 27 | 28 | 18 | 24 | 22 | 23 | 41 | 182 | 344 | 117 | 61 | 37 |
| 18 | 30 | 30 | 17 | 25 | 23 | 24 | 56 | 160 | 344 | 120 | 50 | 35 |
| 19 | 31 | 30 | 16 | 26 | 23 | 23 | 75 | 186 | 350 | 125 | 47 | 33 |
| 20 | 34 | 30 | 18 | 25 | 23 | 23 | 101 | 227 | 324 | 120 | 44 | 38 |
| 21 | 40 | 28 | 18 | 25 | 23 | 23 | 130 | 313 | 303 | 110 | 42 | 36 |
| 22 | 30 | 28 | 18 | 23 | 23 | 24 | 156 | 442 | 280 | 113 | 40 | 34 |
| 23 | 34 | 28 | 19 | 22 | 23 | 24 | 156 | 550 | 270 | 113 | 40 | 32 |
| 24 | 38 | 29 | 18 | 23 | 23 | 24 | 133 | 515 | 257 | 108 | 45 | 32 |
| 25 | 35 | 30 | 18 | 23 | 24 | 25 | 110 | 423 | 236 | 106 | 64 | 31 |
| 26 | 36 | 29 | 18 | 24 | 24 | 25 | 120 | 355 | 232 | 110 | 57 | 30 |
| 27 | 35 | 26 | 18 | 24 | 24 | 24 | 136 | 339 | 227 | 99 | 49 | 30 |
| 28 | 30 | 20 | 18 | 24 | 24 | 25 | 150 | 383 | 219 | 90 | 43 | 28 |
| 29 | 33 | 19 | 17 | 24 | 25 | 24 | 166 | 371 | 215 | 86 | 38 | 28 |
| 30 | 29 | 20 | 15 | 23 | --- | 23 | 186 | 303 | 236 | 88 | 38 | 27 |
| 31 | 22 | --- | 16 | 22 | --- | 23 | --- | 334 | --- | 86 | 38 | --- |
| TOTAL | 940 | 815 | 563 | 670 | 670 | 722 | 2106 | 8311 | 10681 | 3784 | 1690 | 1128 |
| MEAN | 30.3 | 27.2 | 18.2 | 21.6 | 23.1 | 23.3 | 70.2 | 268 | 356 | 122 | 54.5 | 37.6 |
| MAX | 40 | 32 | 20 | 26 | 25 | 25 | 186 | 550 | 585 | 215 | 82 | 75 |
| MIN | 22 | 19 | 15 | 17 | 21 | 22 | 22 | 142 | 215 | 86 | 38 | 27 |
| AC-FT | 1860 | 1620 | 1120 | 1330 | 1330 | 1430 | 4180 | 16480 | 21190 | 7510 | 3350 | 2240 |

CAL YR 1979 TOTAL 44398 MEAN 122 MAX 829 MIN 10 AC-FT 88060
WTR YR 1980 TOTAL 32080 MEAN 87.7 MAX 585 MIN 15 AC-FT 63630

## 09080100 FRYINGPAN RIVER AT MEREDITH, CO

LOCATION.--Lat 39°21'45", long 106°43'55", in SE¼SE¼ sec.11, T.8 S., R.84 W., Eagle County, Hydrologic Unit 14010004, on left bank at Meredith, 0.1 mi (0.2 km) downstream from Waterbury Creek, and 0.7 mi (1.1 km) downstream from Jakeman Creek.

DRAINAGE AREA.--191 mi² (495 km²).

PERIOD OF RECORD.--October 1910 to February 1915 (published as Fryingpan Creek at Thomasville), October 1966 to September 1980 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,780 ft (2,371 m), from topographic map. Oct. 1, 1910, to Feb. 25, 1915, nonrecording gage at site 0.6 mi (1.0 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversion for irrigation of hay meadows above station. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years (water years 1911-14, 1967-71), 234 ft³/s (6.627 m³/s), 169,500 acre-ft/yr (209 hm³/yr), prior to diversion through Charles H. Boustead tunnel; 9 years (water years 1972-80), 142 ft³/s (4.021 m³/s), 102,900 acre-ft/yr (127 hm³/yr), subsequent to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,120 ft³/s (60.0 m³/s) June 5, 6, 8, 1912, gage height, 4.3 ft (1.31 m), site and datum then in use; minimum daily, 15 ft³/s (0.42 m³/s) Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,170 ft³/s (33.1 m³/s) at 0200 June 11, gage height, 4.41 ft (1.344 m); minimum daily, 22 ft³/s (0.62 m³/s) Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 41 | 30 | 29 | 27 | 29 | 35 | 33 | 207 | 498 | 322 | 101 | 50 |
| 2 | 39 | 32 | 31 | 28 | 30 | 35 | 34 | 189 | 494 | 285 | 96 | 49 |
| 3 | 37 | 30 | 32 | 27 | 29 | 34 | 34 | 185 | 549 | 262 | 89 | 48 |
| 4 | 37 | 32 | 33 | 28 | 30 | 35 | 34 | 203 | 630 | 237 | 92 | 46 |
| 5 | 37 | 31 | 34 | 27 | 29 | 34 | 35 | 248 | 676 | 214 | 84 | 45 |
| 6 | 37 | 32 | 34 | 27 | 29 | 35 | 35 | 294 | 701 | 204 | 87 | 44 |
| 7 | 37 | 33 | 32 | 26 | 30 | 35 | 35 | 324 | 646 | 198 | 79 | 44 |
| 8 | 36 | 34 | 31 | 26 | 28 | 35 | 34 | 357 | 638 | 199 | 75 | 48 |
| 9 | 36 | 35 | 30 | 27 | 23 | 35 | 36 | 307 | 707 | 195 | 73 | 64 |
| 10 | 35 | 36 | 29 | 26 | 26 | 35 | 38 | 290 | 812 | 195 | 69 | 59 |
| 11 | 36 | 36 | 30 | 24 | 28 | 35 | 36 | 334 | 931 | 194 | 65 | 81 |
| 12 | 36 | 36 | 28 | 28 | 29 | 35 | 35 | 331 | 905 | 195 | 62 | 68 |
| 13 | 36 | 35 | 25 | 32 | 30 | 35 | 36 | 250 | 823 | 183 | 60 | 64 |
| 14 | 36 | 34 | 27 | 33 | 30 | 35 | 38 | 235 | 725 | 172 | 62 | 57 |
| 15 | 37 | 34 | 28 | 33 | 31 | 35 | 42 | 225 | 636 | 171 | 89 | 53 |
| 16 | 41 | 34 | 30 | 32 | 31 | 34 | 45 | 235 | 565 | 168 | 107 | 51 |
| 17 | 38 | 35 | 28 | 32 | 30 | 32 | 52 | 245 | 534 | 163 | 83 | 49 |
| 18 | 40 | 36 | 28 | 31 | 33 | 33 | 68 | 215 | 528 | 160 | 70 | 47 |
| 19 | 41 | 36 | 29 | 30 | 34 | 33 | 89 | 248 | 540 | 158 | 61 | 44 |
| 20 | 41 | 36 | 30 | 30 | 33 | 34 | 123 | 300 | 506 | 158 | 59 | 48 |
| 21 | 49 | 34 | 30 | 30 | 33 | 34 | 154 | 415 | 465 | 147 | 57 | 46 |
| 22 | 41 | 32 | 30 | 28 | 34 | 35 | 182 | 603 | 439 | 143 | 55 | 44 |
| 23 | 43 | 33 | 28 | 27 | 34 | 34 | 183 | 807 | 416 | 146 | 54 | 43 |
| 24 | 45 | 36 | 26 | 28 | 33 | 34 | 161 | 812 | 404 | 141 | 58 | 42 |
| 25 | 43 | 34 | 28 | 29 | 29 | 34 | 136 | 637 | 386 | 143 | 72 | 42 |
| 26 | 44 | 37 | 26 | 29 | 31 | 33 | 149 | 517 | 380 | 150 | 71 | 41 |
| 27 | 43 | 36 | 27 | 29 | 34 | 34 | 166 | 468 | 366 | 130 | 66 | 42 |
| 28 | 39 | 29 | 27 | 29 | 35 | 34 | 184 | 520 | 343 | 116 | 57 | 41 |
| 29 | 42 | 26 | 23 | 30 | 36 | 33 | 204 | 539 | 328 | 108 | 51 | 40 |
| 30 | 39 | 27 | 22 | 31 | --- | 34 | 229 | 454 | 333 | 113 | 50 | 39 |
| 31 | 34 | --- | 26 | 28 | --- | 34 | --- | 484 | --- | 112 | 50 | --- |
| TOTAL | 1216 | 1001 | 891 | 892 | 891 | 1062 | 2660 | 11478 | 16904 | 5482 | 2204 | 1479 |
| MEAN | 39.2 | 33.4 | 28.7 | 28.8 | 30.7 | 34.3 | 88.7 | 370 | 563 | 177 | 71.1 | 49.3 |
| MAX | 49 | 37 | 34 | 33 | 36 | 35 | 229 | 812 | 931 | 322 | 107 | 81 |
| MIN | 34 | 26 | 22 | 24 | 23 | 32 | 33 | 185 | 328 | 108 | 50 | 39 |
| AC-FT | 2410 | 1990 | 1770 | 1770 | 1770 | 2110 | 5280 | 22770 | 33530 | 10870 | 4370 | 2930 |

CAL YR 1979 TOTAL 63378 MEAN 174 MAX 1260 MIN 22 AC-FT 125700
WTR YR 1980 TOTAL 46160 MEAN 126 MAX 931 MIN 22 AC-FT 91560

## 09080190 RUEDI RESERVOIR NEAR BASALT, CO

LOCATION.--Lat 39°21'50", long 106°49'05", in NW¼ sec.18, T.8 S., R.84 W., Pitkin County, Hydrologic Unit 14010004, in gatehouse of Ruedi Dam just upstream from Rocky Fork Creek and 13 mi (21 km) east of Basalt.

DRAINAGE AREA.--223 $mi^2$ (578 $km^2$).

PERIOD OF RECORD.--May 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began in May 1968; dam completed July 16, 1968. Capacity, 102,300 acre-ft (126 $hm^3$), 1969 survey, between elevations 7,540.00 ft (2,298.192 m), sill of auxiliary outlet, and 7,766.00 ft (2,367.077 m), crest of spillway. Dead storage below elevation 7,540.00 ft (2,298.192 m), 61 acre-ft (75,200 $m^3$). Figures given are total contents.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 103,700 acre-ft (128 $hm^3$) July 15, 1973, elevation, 7,767.56 ft (2,367.552 m); minimum after first filling, 48,000 acre-ft (59.2 $hm^3$) May 13, 1971, elevation, 7,698.03 ft (2,346.360 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 99,500 acre-ft (123 $hm^3$) Aug. 2, elevation, 7,763.05 ft (2,366.178 m); minimum, 52,500 acre-ft (64.7 $hm^3$) Apr. 20, elevation, 7,704.99 ft (2,348.481 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Date | Elevation | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 7,762.05 | 98,500 | - |
| Oct. 31 | 7,754.80 | 91,600 | -6,900 |
| Nov. 30 | 7,747.08 | 84,600 | -7,000 |
| Dec. 31 | 7,738.36 | 77,100 | -7,500 |
| CAL YR 1979 | | | -8,700 |
| Jan. 31 | 7,729.48 | 70,000 | -7,100 |
| Feb. 29 | 7,720.69 | 63,400 | -6,600 |
| Mar. 31 | 7,710.80 | 56,400 | -7,000 |
| Apr. 30 | 7,706.83 | 53,700 | -2,700 |
| May 31 | 7,727.64 | 68,600 | +14,900 |
| June 30 | 7,758.84 | 95,400 | +26,800 |
| July 31 | 7,763.02 | 99,400 | +4,000 |
| Aug. 31 | 7,761.16 | 97,600 | -1,800 |
| Sept. 30 | 7,758.23 | 94,800 | -2,800 |
| WTR YR 1980 | | | -3,700 |

## 09080300 ROCKY FORK CREEK NEAR MEREDITH, CO

LOCATION.--Lat 39°21'42", long 106°49'12", in NW¼NW¼ sec.18, T.8 S., R.84 W., Pitkin County, Hydrologic Unit 14010004, on right bank at upstream end of flume constructed to carry Rocky Fork Creek across spillway and auxiliary outlet of Ruedi Dam on Fryingpan River and 4.6 mi (7.4 km) west of Meredith.

DRAINAGE AREA.--12.3 mi² (31.9 km²).

PERIOD OF RECORD.--September 1959 to July 1967 (discharge measurements only). October 1968 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 7,494.50 ft (2,284.324 m) water and Power Resources Service bench mark.

REMARKS.--Records good. No diversion or regulation above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--12 years (water years 1969-80), 9.53 ft³/s (0.270 m³/s), 6,900 acre-ft/yr (8.51 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 101 ft³/s (2.86 m³/s) June 14, 1978, gage height, 1.74 ft (0.530 m); minimum daily, 1.4 ft³/s (0.040 m³/s) Jan. 5-7, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 82.1 ft³/s (2.33 m³/s) was measured June 7, 1962, and a discharge of 0.24 ft³/s (0.007 m³/s) was measured Apr. 26, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 83 ft³/s (2.35 m³/s) at 2100 June 11, gage height, 1.61 ft (0.491 m), only peak above base of 50 ft³/s (1.4 m³/s); minimum daily, 1.5 ft³/s (0.042 m³/s) Nov. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.3 | 3.4 | 2.5 | 3.4 | 3.2 | 2.8 | 3.0 | 16 | 35 | 23 | 7.1 | 5.2 |
| 2 | 4.5 | 3.0 | 2.5 | 3.4 | 3.2 | 2.8 | 3.0 | 16 | 35 | 21 | 6.5 | 5.2 |
| 3 | 4.7 | 2.7 | 3.0 | 3.4 | 3.2 | 2.8 | 3.0 | 16 | 37 | 20 | 6.5 | 5.2 |
| 4 | 5.0 | 2.4 | 3.2 | 3.4 | 3.0 | 3.0 | 3.0 | 14 | 47 | 18 | 6.8 | 5.2 |
| 5 | 4.7 | 2.2 | 3.0 | 3.4 | 2.8 | 3.0 | 3.5 | 13 | 52 | 17 | 6.5 | 5.2 |
| 6 | 4.3 | 1.7 | 3.2 | 3.2 | 2.8 | 3.0 | 3.5 | 14 | 57 | 17 | 6.5 | 5.2 |
| 7 | 4.0 | 1.7 | 3.5 | 3.0 | 2.8 | 3.0 | 3.0 | 16 | 57 | 16 | 6.8 | 5.2 |
| 8 | 4.3 | 1.8 | 3.5 | 3.6 | 2.8 | 2.8 | 3.0 | 20 | 58 | 15 | 6.8 | 5.2 |
| 9 | 4.0 | 1.5 | 3.5 | 4.0 | 3.0 | 2.8 | 3.0 | 20 | 62 | 14 | 7.1 | 5.2 |
| 10 | 4.3 | 2.1 | 3.2 | 3.6 | 3.0 | 2.8 | 3.5 | 19 | 66 | 14 | 6.5 | 5.2 |
| 11 | 3.8 | 2.7 | 3.4 | 3.2 | 3.0 | 2.8 | 3.5 | 18 | 70 | 13 | 6.2 | 5.2 |
| 12 | 3.8 | 2.8 | 3.4 | 3.2 | 3.0 | 3.0 | 3.0 | 20 | 71 | 13 | 6.2 | 5.2 |
| 13 | 3.4 | 2.2 | 3.4 | 3.2 | 3.0 | 3.0 | 3.0 | 16 | 70 | 12 | 6.2 | 5.0 |
| 14 | 3.4 | 3.6 | 3.4 | 3.2 | 3.0 | 3.0 | 3.5 | 16 | 68 | 12 | 6.2 | 5.0 |
| 15 | 3.4 | 3.4 | 3.4 | 3.2 | 3.0 | 3.2 | 4.0 | 14 | 63 | 11 | 6.2 | 5.0 |
| 16 | 3.4 | 4.0 | 3.4 | 3.2 | 3.0 | 3.0 | 4.5 | 13 | 58 | 10 | 6.0 | 5.0 |
| 17 | 3.2 | 3.6 | 3.4 | 3.2 | 3.0 | 3.0 | 5.0 | 13 | 55 | 9.8 | 6.0 | 5.0 |
| 18 | 3.2 | 2.8 | 3.4 | 3.2 | 3.0 | 3.0 | 6.0 | 13 | 52 | 9.8 | 6.5 | 4.7 |
| 19 | 3.0 | 2.7 | 3.4 | 3.2 | 2.8 | 3.0 | 7.0 | 12 | 50 | 9.5 | 7.1 | 4.5 |
| 20 | 2.7 | 2.2 | 3.4 | 3.2 | 2.8 | 3.0 | 9.0 | 12 | 47 | 8.8 | 6.2 | 4.3 |
| 21 | 2.8 | 2.2 | 3.4 | 3.2 | 2.8 | 3.0 | 11 | 17 | 44 | 8.8 | 6.2 | 4.3 |
| 22 | 2.8 | 2.7 | 3.4 | 3.2 | 2.8 | 3.0 | 13 | 26 | 39 | 8.8 | 6.2 | 4.3 |
| 23 | 3.0 | 3.2 | 3.4 | 3.2 | 3.0 | 3.0 | 13 | 35 | 37 | 8.4 | 6.0 | 4.3 |
| 24 | 2.8 | 3.5 | 3.4 | 3.2 | 2.8 | 3.5 | 11 | 38 | 34 | 8.4 | 5.7 | 4.3 |
| 25 | 2.7 | 3.5 | 3.4 | 3.0 | 2.8 | 3.5 | 8.5 | 33 | 32 | 8.4 | 6.0 | 4.3 |
| 26 | 3.0 | 4.0 | 3.4 | 2.8 | 2.8 | 3.5 | 9.5 | 31 | 30 | 8.1 | 6.0 | 4.3 |
| 27 | 4.0 | 3.5 | 3.4 | 3.2 | 2.8 | 3.5 | 11 | 28 | 28 | 8.4 | 6.0 | 4.3 |
| 28 | 4.3 | 2.5 | 3.4 | 3.2 | 2.8 | 3.5 | 13 | 30 | 26 | 8.4 | 6.0 | 4.3 |
| 29 | 4.3 | 2.0 | 3.4 | 3.2 | 2.8 | 3.5 | 13 | 33 | 25 | 7.8 | 6.0 | 4.3 |
| 30 | 4.0 | 2.2 | 3.4 | 3.2 | --- | 3.0 | 16 | 32 | 23 | 7.4 | 5.7 | 4.3 |
| 31 | 3.6 | --- | 3.4 | 3.2 | --- | 3.0 | --- | 34 | --- | 7.1 | 5.2 | --- |
| TOTAL | 114.7 | 81.8 | 102.5 | 101.0 | 84.8 | 94.8 | 199.0 | 648 | 1428 | 373.9 | 194.9 | 143.9 |
| MEAN | 3.70 | 2.73 | 3.31 | 3.26 | 2.92 | 3.06 | 6.63 | 20.9 | 47.6 | 12.1 | 6.29 | 4.80 |
| MAX | 5.0 | 4.0 | 3.5 | 4.0 | 3.2 | 3.5 | 16 | 38 | 71 | 23 | 7.1 | 5.2 |
| MIN | 2.7 | 1.5 | 2.5 | 2.8 | 2.8 | 2.8 | 3.0 | 12 | 23 | 7.1 | 5.2 | 4.3 |
| AC-FT | 228 | 162 | 203 | 200 | 168 | 188 | 395 | 1290 | 2830 | 742 | 387 | 285 |

CAL YR 1979 TOTAL 4746.3 MEAN 13.0 MAX 87 MIN 1.5 AC-FT 9410
WTR YR 1980 TOTAL 3567.3 MEAN 9.75 MAX 71 MIN 1.5 AC-FT 7080

NOTE.--NO GAGE-HEIGHT RECORD MAR. 15 TO APR. 27.

## 09080400 FRYINGPAN RIVER NEAR RUEDI, CO

LOCATION.--Lat 39°21'56", long 106°49'30", in SE¼SE¼ sec.12, T.8 S., R.85 W., Eagle County, Hydrologic Unit 14010004, on right bank 0.4 mi (0.6 km) downstream from Rocky Fork Creek and Ruedi Dam, 1.5 mi (2.4 km) west of former site of Ruedi, and 12.5 mi (20.1 km) east of Basalt.

DRAINAGE AREA.--238 mi² (616 km²).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,473.25 ft (2,277.847 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Prior to Nov. 7, 1970, at site 2.0 mi (3.2 km) downstream at different datum.

REMARKS.--Records good. Diversions for irrigation of hay meadows above station. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Flow regulated by Ruedi Reservoir (station 09080190) since May 18, 1968. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years (water years 1968-80), 178 ft³/s (5.041 m³/s), 129,000 acre-ft/yr (159 hm³/yr), subsequent to completion of Ruedi Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,690 ft³/s (76.2 m³/s) June 18, 1965, gage height, 5.16 ft (1.573 m), site and datum then in use; minimum daily, 16 ft³/s (0.45 m³/s) Feb. 2, 1968 (result of storage in Ruedi Reservoir); minimum daily prior to construction of Ruedi Reservoir, 28 ft³/s (0.79 m³/s) Mar. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 207 ft³/s (5.86 m³/s) June 11-16, gage height, 1.95 ft (0.594 m); minimum daily, 67 ft³/s (1.90 m³/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 118 | 171 | 171 | 165 | 152 | 147 | 149 | 112 | 186 | 180 | 118 | 113 |
| 2 | 118 | 171 | 171 | 165 | 152 | 147 | 149 | 152 | 186 | 180 | 118 | 113 |
| 3 | 120 | 171 | 171 | 162 | 152 | 149 | 149 | 152 | 186 | 180 | 118 | 113 |
| 4 | 120 | 174 | 168 | 162 | 149 | 147 | 149 | 152 | 183 | 177 | 118 | 113 |
| 5 | 140 | 174 | 168 | 162 | 149 | 147 | 149 | 154 | 183 | 177 | 118 | 113 |
| 6 | 162 | 174 | 168 | 162 | 149 | 145 | 149 | 154 | 189 | 177 | 118 | 113 |
| 7 | 162 | 174 | 168 | 162 | 149 | 145 | 149 | 154 | 189 | 174 | 118 | 113 |
| 8 | 159 | 174 | 168 | 162 | 152 | 145 | 149 | 157 | 186 | 171 | 118 | 113 |
| 9 | 159 | 171 | 168 | 162 | 152 | 145 | 147 | 157 | 193 | 137 | 118 | 114 |
| 10 | 152 | 171 | 168 | 162 | 152 | 145 | 147 | 159 | 200 | 124 | 118 | 114 |
| 11 | 157 | 171 | 168 | 162 | 149 | 145 | 147 | 159 | 207 | 124 | 118 | 114 |
| 12 | 183 | 171 | 168 | 159 | 149 | 145 | 149 | 159 | 207 | 124 | 118 | 114 |
| 13 | 183 | 171 | 168 | 159 | 149 | 145 | 149 | 159 | 207 | 124 | 118 | 114 |
| 14 | 183 | 171 | 168 | 159 | 149 | 145 | 149 | 159 | 207 | 124 | 118 | 114 |
| 15 | 183 | 171 | 165 | 159 | 149 | 145 | 149 | 159 | 207 | 126 | 118 | 81 |
| 16 | 183 | 171 | 165 | 159 | 149 | 147 | 149 | 159 | 207 | 126 | 120 | 68 |
| 17 | 171 | 171 | 165 | 159 | 149 | 147 | 149 | 159 | 203 | 127 | 120 | 68 |
| 18 | 168 | 174 | 170 | 159 | 149 | 149 | 149 | 159 | 200 | 127 | 120 | 67 |
| 19 | 171 | 174 | 160 | 159 | 149 | 149 | 149 | 159 | 200 | 127 | 120 | 94 |
| 20 | 171 | 174 | 170 | 159 | 149 | 149 | 149 | 157 | 196 | 127 | 120 | 111 |
| 21 | 171 | 174 | 168 | 154 | 149 | 149 | 149 | 159 | 196 | 127 | 120 | 111 |
| 22 | 171 | 174 | 168 | 154 | 149 | 149 | 149 | 171 | 193 | 127 | 118 | 111 |
| 23 | 171 | 171 | 165 | 154 | 147 | 149 | 152 | 180 | 189 | 127 | 114 | 110 |
| 24 | 168 | 171 | 168 | 154 | 147 | 149 | 152 | 183 | 189 | 127 | 114 | 110 |
| 25 | 168 | 171 | 165 | 154 | 147 | 149 | 152 | 183 | 186 | 126 | 114 | 110 |
| 26 | 171 | 171 | 165 | 154 | 147 | 149 | 152 | 183 | 186 | 126 | 114 | 110 |
| 27 | 171 | 171 | 165 | 154 | 147 | 149 | 152 | 183 | 186 | 126 | 114 | 110 |
| 28 | 171 | 171 | 165 | 154 | 147 | 149 | 154 | 183 | 183 | 126 | 114 | 110 |
| 29 | 171 | 171 | 165 | 154 | 147 | 149 | 124 | 183 | 183 | 127 | 114 | 110 |
| 30 | 171 | 171 | 165 | 154 | --- | 149 | 75 | 186 | 183 | 122 | 113 | 110 |
| 31 | 174 | --- | 165 | 152 | --- | 149 | --- | 186 | --- | 118 | 113 | --- |
| TOTAL | 5041 | 5160 | 5180 | 4911 | 4325 | 4567 | 4385 | 5071 | 5796 | 4312 | 3632 | 3179 |
| MEAN | 163 | 172 | 167 | 158 | 149 | 147 | 146 | 164 | 193 | 139 | 117 | 106 |
| MAX | 183 | 174 | 171 | 165 | 152 | 149 | 154 | 186 | 207 | 180 | 120 | 114 |
| MIN | 118 | 171 | 160 | 152 | 147 | 145 | 75 | 112 | 183 | 118 | 113 | 67 |
| AC-FT | 10000 | 10230 | 10270 | 9740 | 8580 | 9060 | 8700 | 10060 | 11500 | 8550 | 7200 | 6310 |

CAL YR 1979 TOTAL 74693 MEAN 205 MAX 876 MIN 76 AC-FT 148200
WTR YR 1980 TOTAL 55559 MEAN 152 MAX 207 MIN 67 AC-FT 110200

## 09081600 CRYSTAL RIVER ABOVE AVALANCHE CREEK, NEAR REDSTONE, CO

LOCATION.--Lat 39°13'56", long 107°13'36", in SE¼SW¼ sec.33, T.9 S., R.88 W., Pitkin County, Hydrologic Unit 14010004, on right bank 1.2 mi (1.9 km) upstream from Avalanche Creek and 3.6 mi (5.8 km) north of Redstone.

DRAINAGE AREA.--167 mi² (433 km²).

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,905 ft (2,015 m), from river-profile map.

REMARKS.--Records good. A few small diversions for irrigation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years, 287 ft³/s (8.128 m³/s), 207,900 acre-ft/yr (256 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,980 ft³/s (113 m³/s) July 1, 1957, gage height, 5.65 ft (1.722 m); minimum daily, 22 ft³/s (0.62 m³/s) Dec. 5, 1955, Feb. 15, 1964, Jan. 2, Feb. 17, 18, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,900 ft³/s (82.1 m³/s) at 2400 June 11, gage height, 5.19 ft (1.582 m), only peak above base of 2,000 ft³/s (56.6 m³/s); minimum daily, 28 ft³/s (0.793 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 71 | 53 | 39 | 42 | 46 | 54 | 51 | 535 | 1210 | 1760 | 246 | 99 |
| 2 | 71 | 58 | 43 | 42 | 47 | 52 | 54 | 501 | 1190 | 1770 | 239 | 95 |
| 3 | 71 | 56 | 48 | 40 | 48 | 50 | 52 | 516 | 1300 | 1610 | 237 | 93 |
| 4 | 66 | 59 | 47 | 43 | 46 | 51 | 52 | 546 | 1450 | 1450 | 225 | 90 |
| 5 | 65 | 58 | 51 | 40 | 43 | 51 | 58 | 567 | 1650 | 1230 | 210 | 89 |
| 6 | 64 | 55 | 51 | 40 | 44 | 52 | 59 | 633 | 1740 | 1080 | 199 | 88 |
| 7 | 62 | 59 | 47 | 39 | 43 | 53 | 56 | 709 | 1560 | 1020 | 191 | 90 |
| 8 | 62 | 59 | 47 | 39 | 39 | 51 | 54 | 710 | 1600 | 1030 | 185 | 93 |
| 9 | 60 | 58 | 46 | 40 | 31 | 49 | 60 | 694 | 1890 | 1030 | 179 | 99 |
| 10 | 62 | 58 | 43 | 39 | 37 | 50 | 69 | 652 | 2240 | 989 | 168 | 111 |
| 11 | 62 | 56 | 46 | 28 | 41 | 51 | 68 | 632 | 2490 | 953 | 154 | 146 |
| 12 | 60 | 53 | 36 | 46 | 41 | 49 | 64 | 603 | 2400 | 911 | 147 | 123 |
| 13 | 60 | 51 | 32 | 51 | 46 | 47 | 70 | 491 | 2400 | 976 | 147 | 115 |
| 14 | 59 | 50 | 35 | 59 | 46 | 51 | 84 | 444 | 2280 | 756 | 145 | 105 |
| 15 | 60 | 50 | 40 | 59 | 52 | 53 | 108 | 421 | 2070 | 699 | 220 | 98 |
| 16 | 60 | 50 | 40 | 48 | 49 | 52 | 132 | 465 | 1940 | 621 | 203 | 95 |
| 17 | 59 | 51 | 39 | 46 | 47 | 45 | 153 | 596 | 1960 | 585 | 161 | 93 |
| 18 | 65 | 56 | 36 | 43 | 51 | 50 | 193 | 520 | 2120 | 553 | 144 | 88 |
| 19 | 64 | 55 | 36 | 42 | 51 | 54 | 254 | 546 | 2270 | 545 | 134 | 84 |
| 20 | 78 | 55 | 40 | 41 | 46 | 58 | 324 | 653 | 2170 | 502 | 128 | 83 |
| 21 | 89 | 50 | 43 | 41 | 45 | 62 | 409 | 849 | 2130 | 427 | 121 | 82 |
| 22 | 70 | 46 | 44 | 39 | 49 | 65 | 478 | 1140 | 2100 | 416 | 117 | 80 |
| 23 | 70 | 42 | 42 | 33 | 47 | 60 | 502 | 1370 | 2080 | 401 | 121 | 78 |
| 24 | 68 | 48 | 39 | 44 | 46 | 57 | 439 | 1320 | 2060 | 369 | 131 | 79 |
| 25 | 65 | 51 | 44 | 50 | 42 | 61 | 383 | 1060 | 2000 | 355 | 130 | 77 |
| 26 | 65 | 52 | 41 | 47 | 46 | 57 | 420 | 947 | 2130 | 338 | 141 | 76 |
| 27 | 65 | 48 | 42 | 46 | 50 | 56 | 455 | 946 | 2150 | 314 | 125 | 75 |
| 28 | 62 | 38 | 40 | 47 | 55 | 54 | 525 | 1050 | 1880 | 289 | 115 | 74 |
| 29 | 64 | 30 | 31 | 47 | 59 | 52 | 588 | 1150 | 1620 | 269 | 109 | 73 |
| 30 | 62 | 35 | 31 | 46 | --- | 53 | 591 | 1060 | 1700 | 269 | 107 | 72 |
| 31 | 58 | --- | 35 | 34 | --- | 53 | --- | 1190 | --- | 257 | 105 | --- |
| TOTAL | 2019 | 1540 | 1274 | 1341 | 1333 | 1653 | 6805 | 23516 | 57780 | 23774 | 4984 | 2743 |
| MEAN | 65.1 | 51.3 | 41.1 | 43.3 | 46.0 | 53.3 | 227 | 759 | 1926 | 767 | 161 | 91.4 |
| MAX | 89 | 59 | 51 | 59 | 59 | 65 | 591 | 1370 | 2490 | 1770 | 246 | 146 |
| MIN | 58 | 30 | 31 | 28 | 31 | 45 | 51 | 421 | 1190 | 257 | 105 | 72 |
| AC-FT | 4000 | 3050 | 2530 | 2660 | 2640 | 3280 | 13500 | 46640 | 114600 | 47160 | 9890 | 5440 |

CAL YR 1979 TOTAL 131060 MEAN 359 MAX 2300 MIN 30 AC-FT 260000
WTR YR 1980 TOTAL 128762 MEAN 352 MAX 2490 MIN 28 AC-FT 255400

## 09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°32'37", long 107°19'44", in SW¼SE¼ sec.9, T.6 S., R.89 W., Garfield County, Hydrologic Unit 14010004, on left bank at Glenwood Springs, 2,100 ft (640 m) upstream from mouth.

DRAINAGE AREA.--1,451 mi$^2$ (3,758 km$^2$).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1905 to September 1909, September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1960, published as Roaring Fork at Glenwood Springs.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,720.73 ft (1,743.679 m), National Geodetic Vertical Datum of 1929. Prior to Nov. 20, 1915, nonrecording gage on highway bridge 800 ft (240 m) downstream at different datum. Nov. 20, 1915, to Oct. 26, 1917, nonrecording gage at present site and datum.

REMARKS.--Records good. Diversions above station for irrigation of about 35,000 acres (142 km$^2$). Transmountain diversions to Arkansas River basin through Busk-Ivanhoe tunnel since 1925, Twin Lakes tunnel since 1935, and Charles H. Boustead tunnel since 1972 (see elsewhere in this report). Natural flow of stream affected by storage in Ruedi Reservoir on Fryingpan River (station 09080190) since May 1968.

AVERAGE DISCHARGE.--65 years (water years 1906-9, 1911-71), 1,368 ft$^3$/s (38.74 m$^3$/s), 991,100 acre-ft/yr (1,220 hm$^3$/yr), prior to diversion through Charles H. Boustead tunnel; 9 years (water years 1972-80), 1,145 ft$^3$/s (32.43 m$^3$/s), 829,600 acre-ft/yr (1,020 hm$^3$/yr), subsequent to diversions through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft$^3$/s (538 m$^3$/s) July 1, 1957, gage height, 8.65 ft (2.633 m); maximum gage height, 8.7 ft (2.65 m) June 14, 1921, from floodmarks; minimum discharge, 145 ft$^3$/s (4.11 m$^3$/s) Jan. 21, 1935, gage height, 0.65 ft (0.198 m); minimum daily, 179 ft$^3$/s (5.07 m$^3$/s) Jan. 21, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,040 ft$^3$/s (228 m$^3$/s) at 0630 June 12, gage height, 5.94 ft (1.810 m); minimum daily, 486 ft$^3$/s (13.6 m$^3$/s) Mar. 17 and Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 519 | 735 | 650 | 620 | 598 | 552 | 486 | 1420 | 3380 | 5020 | 1100 | 719 |
| 2 | 519 | 751 | 650 | 605 | 605 | 538 | 526 | 1380 | 3280 | 5160 | 1070 | 711 |
| 3 | 519 | 751 | 655 | 582 | 590 | 552 | 506 | 1330 | 3480 | 4910 | 1060 | 703 |
| 4 | 526 | 759 | 660 | 582 | 582 | 552 | 506 | 1390 | 3860 | 4580 | 1050 | 665 |
| 5 | 526 | 751 | 670 | 575 | 560 | 538 | 519 | 1450 | 4250 | 4060 | 1010 | 665 |
| 6 | 560 | 743 | 680 | 590 | 560 | 552 | 532 | 1610 | 4690 | 3660 | 990 | 650 |
| 7 | 568 | 751 | 670 | 582 | 568 | 560 | 532 | 1840 | 4520 | 3460 | 1000 | 650 |
| 8 | 575 | 751 | 660 | 582 | 538 | 545 | 500 | 2010 | 4470 | 3460 | 923 | 642 |
| 9 | 582 | 751 | 660 | 582 | 526 | 532 | 526 | 2020 | 5050 | 3380 | 887 | 665 |
| 10 | 598 | 743 | 660 | 590 | 538 | 512 | 538 | 1950 | 6010 | 3240 | 843 | 703 |
| 11 | 590 | 735 | 650 | 560 | 545 | 519 | 545 | 1840 | 7030 | 3070 | 826 | 792 |
| 12 | 612 | 727 | 630 | 598 | 552 | 532 | 519 | 1980 | 7170 | 2940 | 792 | 751 |
| 13 | 612 | 711 | 620 | 598 | 560 | 500 | 532 | 1560 | 7090 | 3100 | 784 | 735 |
| 14 | 612 | 703 | 610 | 620 | 560 | 519 | 552 | 1360 | 6780 | 2630 | 775 | 719 |
| 15 | 620 | 703 | 610 | 635 | 598 | 526 | 598 | 1280 | 6320 | 2490 | 887 | 688 |
| 16 | 635 | 711 | 605 | 612 | 582 | 526 | 628 | 1320 | 5740 | 2250 | 1000 | 650 |
| 17 | 620 | 703 | 605 | 598 | 560 | 486 | 658 | 1660 | 5530 | 2090 | 896 | 635 |
| 18 | 642 | 727 | 600 | 598 | 575 | 500 | 703 | 1500 | 5810 | 1980 | 826 | 612 |
| 19 | 642 | 719 | 598 | 590 | 628 | 532 | 792 | 1500 | 6240 | 1900 | 775 | 620 |
| 20 | 665 | 719 | 598 | 590 | 598 | 519 | 914 | 1700 | 6320 | 1820 | 751 | 642 |
| 21 | 775 | 688 | 598 | 582 | 575 | 519 | 1040 | 2120 | 6240 | 1680 | 743 | 635 |
| 22 | 759 | 672 | 612 | 582 | 568 | 532 | 1240 | 3030 | 6110 | 1550 | 727 | 628 |
| 23 | 751 | 680 | 605 | 545 | 560 | 538 | 1250 | 3860 | 6030 | 1480 | 719 | 628 |
| 24 | 759 | 688 | 575 | 575 | 538 | 526 | 1230 | 3980 | 5980 | 1450 | 759 | 628 |
| 25 | 759 | 695 | 598 | 605 | 512 | 538 | 1100 | 3360 | 6010 | 1380 | 809 | 612 |
| 26 | 759 | 711 | 582 | 612 | 526 | 526 | 1150 | 2850 | 6130 | 1380 | 826 | 612 |
| 27 | 759 | 710 | 598 | 598 | 545 | 512 | 1170 | 2610 | 6320 | 1280 | 792 | 612 |
| 28 | 759 | 690 | 582 | 598 | 552 | 512 | 1290 | 2760 | 5790 | 1200 | 767 | 605 |
| 29 | 759 | 670 | 560 | 605 | 560 | 506 | 1450 | 3070 | 5090 | 1130 | 751 | 605 |
| 30 | 759 | 650 | 560 | 590 | --- | 500 | 1510 | 2850 | 4940 | 1130 | 743 | 605 |
| 31 | 751 | --- | 579 | 532 | --- | 512 | --- | 3240 | --- | 1110 | 735 | --- |
| TOTAL | 20091 | 21498 | 19186 | 18313 | 16359 | 16313 | 24042 | 65830 | 165660 | 79970 | 26616 | 19787 |
| MEAN | 648 | 717 | 619 | 591 | 564 | 526 | 801 | 2124 | 5522 | 2580 | 859 | 660 |
| MAX | 775 | 759 | 680 | 635 | 628 | 560 | 1510 | 3980 | 7170 | 5160 | 1100 | 792 |
| MIN | 519 | 650 | 560 | 532 | 512 | 486 | 486 | 1280 | 3280 | 1110 | 719 | 605 |
| AC-FT | 39850 | 42640 | 38060 | 36320 | 32450 | 32360 | 47690 | 130600 | 328600 | 158600 | 52790 | 39250 |

CAL YR 1979 TOTAL 553405 MEAN 1516 MAX 8400 MIN 370 AC-FT 1098000
WTR YR 1980 TOTAL 493665 MEAN 1349 MAX 7170 MIN 486 AC-FT 979200

## 09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1958 to August 1961, May 1962 to September 1967, January 1970 to May 1972, January to September 1980.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1962 to Septemer 1967, January to September 1980.
WATER TEMPERATURE: May 1962 to May 1967, January to September 1980.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

COOPERATION.--Chemical-quality data are furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 870 micromhos Oct. 1, 1966; minimum, 162 micromhos June 27, 1980.
WATER TEMPERATURE: Maximum, 22.0°C July 30, 1965; minimum, freezing point on many days during winter months each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 780 micromhos Sept. 26; minimum, 162 micromhos June 27.
WATER TEMPERATURE: Maximum, 21.5°C July 6; minimum recorded, 1°C several days in January and February.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | |
| 17... | -- | 605 | 584 | 7.7 | 4.0 | 250 | 130 | 79 | 12 | 23 | .7 |
| 21... | 1200 | 582 | 584 | 8.3 | 3.0 | 260 | 140 | 81 | 13 | 23 | .6 |
| 28... | 1230 | 526 | 593 | 8.1 | 2.0 | 260 | 130 | 80 | 13 | 23 | .6 |
| FEB | | | | | | | | | | | |
| 04... | 1130 | 650 | 588 | 8.1 | 4.5 | 250 | 130 | 79 | 13 | 23 | .7 |
| 13... | 1140 | 580 | 574 | 8.1 | 1.5 | 260 | 130 | 80 | 13 | 22 | .6 |
| 21... | 1200 | 767 | 554 | 8.4 | 5.0 | 250 | 130 | 78 | 14 | 24 | .7 |
| 29... | 1110 | 800 | 584 | 8.4 | 5.0 | 260 | 130 | 81 | 13 | 22 | .6 |
| MAR | | | | | | | | | | | |
| 06... | 1245 | 538 | 448 | 8.2 | 6.0 | 160 | 68 | 48 | 10 | 25 | .9 |
| 13... | -- | 506 | 595 | 8.1 | 2.0 | 260 | 140 | 83 | 13 | 22 | .6 |
| 17... | 1310 | 490 | 640 | 8.4 | 3.5 | 260 | 130 | 80 | 13 | 24 | .7 |
| 27... | 1400 | 496 | 595 | 8.3 | 6.5 | 270 | 140 | 83 | 14 | 24 | .7 |
| APR | | | | | | | | | | | |
| 01... | 1340 | 486 | 579 | 8.4 | 7.0 | 260 | 140 | 80 | 13 | 24 | .7 |
| 08... | 1230 | 496 | 592 | 8.3 | 6.0 | 270 | 150 | 85 | 14 | 23 | .6 |
| 17... | 1130 | 632 | 548 | 8.1 | 8.5 | 240 | 110 | 75 | 13 | 19 | .5 |
| 25... | 1330 | 1000 | 418 | 8.0 | 9.0 | 180 | 76 | 57 | 9.8 | 13 | .4 |
| 28... | 1230 | 1250 | 379 | 7.9 | 9.0 | 170 | 69 | 52 | 9.3 | 11 | .4 |
| MAY | | | | | | | | | | | |
| 08... | 1300 | 1820 | 318 | 7.6 | 10.0 | 140 | 49 | 43 | 7.1 | 8.3 | .3 |
| 13... | 1130 | 1510 | 351 | 7.7 | 7.5 | 150 | 56 | 48 | 8.1 | 10 | .4 |
| 23... | 1200 | 3400 | 253 | 8.0 | 11.0 | 110 | 35 | 36 | 5.6 | 6.0 | .2 |
| 30... | 1400 | 6440 | 284 | 7.5 | 10.0 | 130 | 46 | 40 | 6.3 | 7.4 | .3 |
| JUN | | | | | | | | | | | |
| 02... | 1245 | 3260 | 271 | 7.6 | 8.5 | 120 | 40 | 37 | 6.0 | 7.1 | .3 |
| 13... | 1300 | 7400 | 205 | 7.9 | 8.0 | 91 | 25 | 29 | 4.1 | 3.9 | .2 |
| 16... | 1135 | 5850 | 213 | 8.2 | 8.0 | 91 | 27 | 29 | 4.4 | 4.8 | .2 |
| 25... | 0830 | 6650 | 205 | 7.9 | 8.5 | 91 | 28 | 29 | 4.4 | 4.1 | .2 |
| JUL | | | | | | | | | | | |
| 03... | 1145 | 5000 | 230 | 8.1 | 12.0 | 110 | 37 | 34 | 5.2 | 6.0 | .3 |
| 11... | 1310 | 3050 | 302 | 7.8 | 13.0 | 130 | 48 | 41 | 6.6 | 8.7 | .3 |
| 14... | 1215 | 2650 | 331 | 7.8 | 13.0 | 150 | 54 | 45 | 7.4 | 9.4 | .3 |
| 25... | 1400 | 1450 | 441 | 8.3 | 16.0 | 190 | 75 | 60 | 9.8 | 16 | .5 |
| 31... | 1615 | 1130 | 483 | 8.2 | 19.0 | 200 | 91 | 62 | 11 | 20 | .6 |
| AUG | | | | | | | | | | | |
| 07... | 1230 | 1070 | 552 | 8.3 | 16.0 | 240 | 95 | 75 | 12 | 20 | .6 |
| 13... | 1225 | 672 | 633 | 8.2 | 16.0 | 270 | 120 | 84 | 14 | 28 | .8 |
| 22... | 1000 | 781 | 650 | 8.2 | 13.0 | 284 | 130 | 88 | 16 | 31 | .8 |
| 29... | 0945 | 751 | 660 | 8.3 | 12.5 | 280 | 120 | 88 | 15 | 29 | .2 |
| SEP | | | | | | | | | | | |
| 02... | 1405 | 700 | 664 | 8.3 | 15.0 | 270 | 120 | 85 | 14 | 31 | .8 |
| 11... | 0910 | 767 | 662 | 8.2 | 12.0 | 270 | 110 | 84 | 14 | 29 | .8 |
| 18... | 1200 | 626 | 724 | 8.3 | 12.5 | 300 | 140 | 91 | 16 | 38 | 1.0 |
| 25... | 1140 | 600 | 724 | 8.2 | 10.5 | 300 | 140 | 91 | 16 | 37 | 1.0 |

### 09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | BICAR-BONATE (MG/L AS HCO3) | CAR-BONATE (MG/L AS CO3) | ALKA-LINITY (MG/L AS CACO3) | CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | |
| 17... | 2.3 | 153 | 0 | 125 | 4.9 | 144 | 27 | 361 | .49 | 590 |
| 21... | 2.0 | 140 | 3 | 121 | 1.2 | 140 | 28 | 375 | .51 | 589 |
| 28... | 2.0 | 149 | 0 | 122 | 1.9 | 139 | 26 | 370 | .50 | 525 |
| FEB | | | | | | | | | | |
| 04... | 2.3 | 149 | 0 | 122 | 1.9 | 156 | 27 | 394 | .54 | 691 |
| 13... | 2.0 | 154 | 0 | 127 | 2.0 | 150 | 25 | 385 | .52 | 603 |
| 21... | 2.3 | 129 | 11 | 125 | 1.0 | 144 | 28 | 403 | .55 | 835 |
| 29... | 2.0 | 143 | 6 | 127 | 1.0 | 148 | 27 | 396 | .54 | 855 |
| MAR | | | | | | | | | | |
| 06... | 2.7 | 115 | 0 | 94 | 1.2 | 84 | 31 | 274 | .37 | 398 |
| 13... | 2.0 | 149 | 0 | 123 | 1.9 | 148 | 29 | 377 | .51 | 515 |
| 17... | 2.0 | 133 | 8 | 123 | 1.0 | 156 | 30 | 385 | .52 | 509 |
| 27... | 2.0 | 136 | 6 | 123 | 1.2 | 148 | 28 | 388 | .53 | 520 |
| APR | | | | | | | | | | |
| 01... | 2.0 | 135 | 6 | 121 | .9 | 152 | 27 | 387 | .53 | 508 |
| 08... | 2.0 | 140 | 6 | 126 | 1.2 | 160 | 27 | 391 | .53 | 524 |
| 17... | 2.3 | 156 | 0 | 128 | 2.0 | 128 | 20 | 370 | .50 | 631 |
| 25... | 2.0 | 132 | 0 | 109 | 2.1 | 89 | 12 | 285 | .39 | 769 |
| 28... | 2.0 | 124 | 0 | 102 | 2.5 | 77 | 11 | 244 | .33 | 823 |
| MAY | | | | | | | | | | |
| 08... | 1.6 | 108 | 0 | 89 | 4.3 | 60 | 7.8 | 212 | .29 | 1040 |
| 13... | 2.0 | 120 | 0 | 98 | 3.8 | 65 | 10 | 230 | .31 | 938 |
| 23... | 2.0 | 95 | 0 | 78 | 1.5 | 39 | 4.6 | 180 | .24 | 1650 |
| 30... | 1.2 | 98 | 0 | 81 | 5.0 | 45 | 9.2 | 184 | .25 | 3200 |
| JUN | | | | | | | | | | |
| 02... | 1.2 | 93 | 0 | 77 | 3.8 | 34 | 6.0 | 180 | .24 | 1580 |
| 03... | 1.2 | 79 | 0 | 66 | 1.6 | 30 | 3.2 | 144 | .20 | 2880 |
| 16... | .8 | 78 | 0 | 64 | .8 | 30 | 4.3 | 108 | .15 | 1710 |
| 25... | .8 | 76 | 0 | 63 | 1.5 | 34 | 2.8 | 139 | .19 | 2500 |
| JUL | | | | | | | | | | |
| 03... | .8 | 86 | 0 | 71 | 1.1 | 42 | 5.3 | 143 | .19 | 1930 |
| 11... | 1.2 | 101 | 0 | 83 | 2.6 | 53 | 9.6 | 162 | .22 | 1330 |
| 14... | 1.2 | 110 | 0 | 91 | 2.8 | 58 | 10 | 177 | .24 | 1270 |
| 25... | 1.6 | 126 | 8 | 117 | 1.1 | 81 | 18 | 236 | .32 | 924 |
| 31... | 2.0 | 135 | 0 | 111 | 1.4 | 99 | 26 | 305 | .41 | 931 |
| AUG | | | | | | | | | | |
| 07... | 2.0 | 137 | 18 | 143 | 1.4 | 114 | 23 | 347 | .47 | 1000 |
| 13... | 2.3 | 183 | 0 | 150 | 1.8 | 126 | 36 | 407 | .55 | 738 |
| 22... | 2.3 | 194 | 0 | 159 | 2.0 | 140 | 39 | 438 | .60 | 924 |
| 29... | 2.3 | 131 | 30 | 158 | 1.5 | 136 | 39 | 421 | .57 | 854 |
| SEP | | | | | | | | | | |
| 02... | 2.3 | 144 | 23 | 157 | 1.5 | 138 | 40 | 436 | .59 | 824 |
| 11... | 2.3 | 195 | 0 | 160 | 2.0 | 142 | 39 | 432 | .59 | 895 |
| 18... | 2.3 | 156 | 18 | 158 | 1.5 | 144 | 42 | 453 | .62 | 766 |
| 25... | 2.3 | 194 | 0 | 159 | 2.0 | 146 | 47 | 441 | .60 | 714 |

## 09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | --- | 608 | 605 | 580 | 366 | 264 | 233 | 490 | 632 |
| 2 | | | | --- | 594 | 600 | 587 | 374 | 274 | 237 | 505 | 658 |
| 3 | | | | --- | 597 | 595 | 591 | 366 | 265 | 247 | 520 | 691 |
| 4 | | | | --- | 611 | 590 | 597 | 354 | 254 | 264 | 540 | 704 |
| 5 | | | | --- | 620 | 580 | 605 | 341 | 242 | 298 | 550 | 710 |
| 6 | | | | --- | 619 | 575 | 606 | 322 | 235 | 290 | 570 | 716 |
| 7 | | | | --- | 616 | 565 | 608 | 315 | 253 | 294 | 584 | 723 |
| 8 | | | | --- | 616 | 573 | 624 | 311 | 254 | 296 | 594 | 723 |
| 9 | | | | --- | 628 | 581 | 621 | 315 | 227 | 298 | 606 | 715 |
| 10 | | | | --- | 628 | 587 | 616 | 326 | 209 | 301 | 630 | 697 |
| 11 | | | | --- | 617 | 586 | 606 | 337 | 204 | 303 | 648 | 660 |
| 12 | | | | --- | 612 | 578 | 598 | 336 | 207 | 311 | 668 | 659 |
| 13 | | | | --- | 601 | 584 | 594 | 365 | 207 | 329 | 668 | 668 |
| 14 | | | | --- | 607 | 594 | 587 | 378 | 210 | 311 | 665 | 679 |
| 15 | | | | --- | 609 | 604 | 580 | 384 | 217 | 302 | 651 | 690 |
| 16 | | | | --- | 616 | 613 | 561 | 381 | 226 | 323 | 660 | 724 |
| 17 | | | | 590 | 631 | 623 | 546 | 354 | 228 | 338 | 665 | 733 |
| 18 | | | | 598 | 638 | 619 | 541 | 362 | 218 | 350 | 670 | 738 |
| 19 | | | | 597 | 623 | 612 | 515 | 364 | 216 | 365 | 665 | 748 |
| 20 | | | | 595 | 618 | 611 | 478 | 346 | 219 | 380 | 660 | 729 |
| 21 | | | | 596 | 614 | 613 | 447 | 316 | 211 | 400 | 665 | 730 |
| 22 | | | | 597 | 605 | 613 | 414 | 273 | 203 | 410 | 665 | 738 |
| 23 | | | | 612 | 603 | 610 | 405 | 245 | 196 | 430 | 668 | 738 |
| 24 | | | | 607 | 603 | 613 | 404 | 241 | 188 | 440 | 651 | 738 |
| 25 | | | | 595 | 613 | 612 | 406 | 268 | 180 | 456 | 639 | 739 |
| 26 | | | | 595 | 611 | 610 | 408 | 288 | 172 | 459 | 624 | 754 |
| 27 | | | | 601 | 605 | 623 | 393 | 299 | 177 | 462 | 623 | 747 |
| 28 | | | | 599 | 607 | 615 | 382 | 289 | 185 | 465 | 633 | 742 |
| 29 | | | | 591 | 613 | 604 | 366 | 273 | 207 | 468 | 643 | 722 |
| 30 | | | | 598 | --- | 598 | 358 | 281 | 221 | 468 | 643 | 746 |
| 31 | | | | 622 | --- | 582 | --- | 254 | --- | 474 | 682 | --- |

## 09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | | | | | | | --- | --- | 2.0 | 1.0 | --- | --- |
| 2 | | | | | | | --- | --- | 4.0 | 1.0 | --- | --- |
| 3 | | | | | | | --- | --- | 5.0 | 2.0 | --- | --- |
| 4 | | | | | | | --- | --- | 7.0 | 4.5 | --- | --- |
| 5 | | | | | | | --- | --- | 5.5 | 2.5 | --- | --- |
| 6 | | | | | | | --- | --- | 5.0 | 2.0 | --- | --- |
| 7 | | | | | | | --- | --- | 5.0 | 3.5 | 6.5 | 4.0 |
| 8 | | | | | | | --- | --- | 3.5 | 1.0 | 7.5 | 5.0 |
| 9 | | | | | | | --- | --- | 2.0 | 1.0 | 7.0 | 4.5 |
| 10 | | | | | | | --- | --- | 2.0 | 1.0 | 8.0 | 4.0 |
| 11 | | | | | | | --- | --- | 2.5 | 1.0 | 7.5 | 4.0 |
| 12 | | | | | | | --- | --- | 3.0 | 1.0 | 6.5 | 4.0 |
| 13 | | | | | | | --- | --- | 4.5 | 1.0 | --- | --- |
| 14 | | | | | | | --- | --- | 5.5 | 3.0 | --- | --- |
| 15 | | | | | | | --- | --- | 7.0 | 5.0 | --- | --- |
| 16 | | | | | | | --- | --- | 7.5 | 5.5 | --- | --- |
| 17 | | | | | | | --- | --- | 6.5 | 4.5 | --- | --- |
| 18 | | | | | | | 6.5 | 4.0 | 5.5 | 4.5 | 7.5 | 1.5 |
| 19 | | | | | | | 4.5 | 3.0 | --- | --- | 9.0 | 4.5 |
| 20 | | | | | | | 4.0 | 2.0 | --- | --- | 9.0 | 4.5 |
| 21 | | | | | | | 4.0 | 1.5 | --- | --- | 9.0 | 5.0 |
| 22 | | | | | | | 3.0 | 1.0 | 6.5 | 5.0 | 9.5 | 7.0 |
| 23 | | | | | | | 2.0 | 1.0 | 5.5 | 4.0 | 9.0 | 5.5 |
| 24 | | | | | | | 2.5 | 1.0 | 6.5 | 3.0 | 9.0 | 4.5 |
| 25 | | | | | | | 3.5 | 1.0 | 5.5 | 1.5 | 8.0 | 6.0 |
| 26 | | | | | | | 4.0 | 2.0 | 5.5 | 1.5 | 8.0 | 4.5 |
| 27 | | | | | | | 3.5 | 2.5 | 7.0 | 2.5 | 8.5 | 3.5 |
| 28 | | | | | | | 3.0 | 2.0 | 7.5 | 3.0 | 7.5 | 4.5 |
| 29 | | | | | | | 3.0 | 1.5 | --- | 5.5 | 8.0 | 4.5 |
| 30 | | | | | | | 4.0 | 1.5 | --- | --- | 7.0 | 4.0 |
| 31 | | | | | | | 1.5 | 1.0 | --- | --- | 6.0 | 3.5 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 8.5 | 2.5 | --- | --- | 12.5 | 8.5 | 15.0 | 11.0 | --- | --- | 16.5 | 10.5 |
| 2 | 7.5 | 6.0 | 13.0 | 9.0 | 13.5 | 8.5 | 15.5 | 11.5 | --- | --- | 17.0 | 10.5 |
| 3 | 9.0 | 4.0 | 13.0 | 9.0 | 14.5 | 8.5 | 16.0 | 12.0 | --- | --- | 17.5 | 11.0 |
| 4 | 11.0 | 5.5 | 14.0 | 9.5 | 14.5 | 9.0 | 17.5 | 11.0 | --- | --- | 18.0 | 11.0 |
| 5 | 9.5 | 7.0 | 13.0 | 10.0 | 14.5 | 8.5 | 20.0 | 13.5 | --- | --- | 18.0 | 11.5 |
| 6 | 10.0 | 7.5 | 11.0 | 9.5 | 14.0 | 8.5 | 21.5 | 12.5 | --- | --- | 18.5 | 13.5 |
| 7 | 8.5 | 6.5 | --- | --- | 13.5 | 8.5 | 18.0 | 13.0 | --- | --- | 17.5 | 14.0 |
| 8 | 9.0 | 3.0 | --- | --- | 14.0 | 9.0 | --- | --- | 20.0 | 15.5 | 16.0 | 14.0 |
| 9 | 10.5 | 5.5 | 11.5 | 8.0 | 14.5 | 9.5 | --- | --- | 20.5 | 15.5 | 15.5 | 13.5 |
| 10 | 11.0 | 8.0 | 12.0 | 8.5 | 14.5 | 9.0 | --- | --- | 20.5 | 15.0 | 15.5 | 14.0 |
| 11 | 8.5 | 6.0 | 13.0 | 9.0 | 14.0 | 9.0 | --- | --- | 20.0 | 14.0 | 15.0 | 12.0 |
| 12 | 10.0 | 4.5 | 10.0 | 7.0 | 14.0 | 8.5 | 16.0 | 12.0 | 19.0 | 14.0 | 16.0 | 12.5 |
| 13 | 10.0 | 5.0 | 11.5 | 7.0 | 14.0 | 9.0 | 16.5 | 12.0 | --- | --- | 16.0 | 11.0 |
| 14 | 11.5 | 5.5 | 12.0 | 8.5 | 14.0 | 8.5 | 17.0 | 12.0 | --- | --- | 16.0 | 10.5 |
| 15 | 12.5 | 7.5 | 12.0 | 9.0 | 13.5 | 8.5 | 18.0 | 13.5 | --- | --- | 15.5 | 11.0 |
| 16 | 12.5 | 7.5 | 12.5 | 10.0 | 14.0 | 8.5 | 18.0 | 14.0 | --- | --- | 16.5 | 12.0 |
| 17 | 12.5 | 7.0 | 12.0 | 9.0 | 14.0 | 9.5 | --- | --- | --- | --- | 15.5 | 10.5 |
| 18 | 13.0 | 7.5 | 14.0 | 7.5 | 14.5 | 10.0 | --- | --- | --- | --- | 16.0 | 10.5 |
| 19 | 13.0 | 7.5 | 14.0 | 9.5 | 14.5 | 10.0 | --- | --- | --- | --- | 17.0 | 11.5 |
| 20 | 13.0 | 8.0 | 15.0 | 10.0 | 14.5 | 10.0 | --- | --- | --- | --- | 17.0 | 12.5 |
| 21 | 13.0 | 8.0 | 15.5 | 9.5 | --- | --- | --- | --- | --- | --- | 14.5 | 10.0 |
| 22 | 12.0 | 8.5 | 15.0 | 9.5 | --- | --- | --- | --- | --- | --- | 14.5 | 10.0 |
| 23 | 10.5 | 7.0 | 14.0 | 9.5 | --- | --- | --- | --- | 16.0 | 13.0 | 14.0 | 8.5 |
| 24 | 10.5 | 7.5 | 11.5 | 9.0 | --- | --- | --- | --- | 15.0 | 13.0 | 14.0 | 8.5 |
| 25 | 12.0 | 6.5 | 11.0 | 6.5 | --- | --- | --- | --- | 17.0 | 12.0 | 14.0 | 8.5 |
| 26 | 12.5 | 7.5 | 11.5 | 7.0 | --- | --- | --- | --- | 17.0 | 12.0 | 14.0 | 8.5 |
| 27 | 12.0 | 7.0 | 13.0 | 8.0 | 15.5 | 10.5 | --- | --- | 16.0 | 11.5 | 14.5 | 9.0 |
| 28 | 11.5 | 9.5 | 14.0 | 8.5 | 15.5 | 10.0 | --- | --- | 17.5 | 11.0 | 14.5 | 9.0 |
| 29 | 12.0 | 9.5 | 12.5 | 9.0 | 15.0 | 11.0 | --- | --- | 16.5 | 11.5 | 14.5 | 9.5 |
| 30 | 12.0 | 9.0 | 14.0 | 8.0 | 15.0 | 11.5 | --- | --- | 15.0 | 11.0 | 14.5 | 9.0 |
| 31 | --- | --- | 13.5 | 8.5 | --- | --- | --- | --- | 14.5 | 10.5 | --- | --- |

## 09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°33'18", long 107°20'13", in NW¼NW¼ sec.9, T.6 S., R.89 W., Garfield County, Hydrologic Unit 14010005, on left bank 0.6 mi (1.0 km) downstream from Roaring Fork River and 1.0 mi (1.6 km) northwest of Post Office in Glenwood Springs.

DRAINAGE AREA.--6,013 mi² (15,574 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,700.75 ft (1,737.589 m) Colorado State Highway Department datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of 110,000 acres (445 km²).

AVERAGE DISCHARGE.--14 years, 3,342 ft³/s (94.65 m³/s), 2,421,000 acre-ft/yr (2,980 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,500 ft³/s (581 m³/s) June 15, 1973, gage height, 9.48 ft³/s (2.890 m); minimum daily, 910 ft³/s (25.8 m³/s) Mar. 12, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,800 ft³/s (532 m³/s) at 0900 June 12, gage height, 8.78 ft (2.676 m); minimum daily, 1,400 ft³/s (39.6 m³/s) Dec. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2050 | 2200 | 1480 | 1700 | 1560 | 1710 | 1680 | 5130 | 11200 | 9160 | 2980 | 2210 |
| 2 | 2010 | 2210 | 1590 | 1820 | 1770 | 1680 | 1750 | 5020 | 11000 | 9390 | 2920 | 2100 |
| 3 | 1970 | 2100 | 1760 | 1810 | 1880 | 1710 | 1670 | 5020 | 11100 | 9330 | 2880 | 1970 |
| 4 | 2010 | 2070 | 2040 | 1810 | 1840 | 1740 | 1680 | 5290 | 11700 | 8860 | 2770 | 2070 |
| 5 | 2000 | 2150 | 2060 | 1790 | 1750 | 1720 | 1690 | 5700 | 12700 | 8080 | 2690 | 2160 |
| 6 | 2040 | 2120 | 2070 | 1780 | 1740 | 1740 | 1740 | 6380 | 14100 | 7270 | 2630 | 2120 |
| 7 | 2040 | 2150 | 2010 | 1780 | 1770 | 1780 | 1760 | 7100 | 14200 | 6830 | 2600 | 2000 |
| 8 | 2070 | 2180 | 2070 | 1680 | 1630 | 1740 | 1670 | 7690 | 14000 | 6760 | 2550 | 1860 |
| 9 | 2100 | 2180 | 1990 | 1770 | 1530 | 1700 | 1640 | 7910 | 14600 | 6610 | 2590 | 2000 |
| 10 | 2060 | 2160 | 1950 | 1840 | 1450 | 1640 | 1700 | 7690 | 16100 | 6280 | 2450 | 2270 |
| 11 | 2070 | 2120 | 1960 | 1710 | 1480 | 1650 | 1730 | 7580 | 17600 | 6040 | 2360 | 2390 |
| 12 | 2130 | 2100 | 1720 | 1720 | 1530 | 1680 | 1680 | 7970 | 18200 | 5900 | 2320 | 2360 |
| 13 | 2140 | 2030 | 1400 | 1860 | 1650 | 1600 | 1650 | 7460 | 17900 | 6060 | 2270 | 2370 |
| 14 | 2150 | 2050 | 1400 | 1980 | 1720 | 1610 | 1730 | 6920 | 17000 | 5560 | 2410 | 2280 |
| 15 | 2160 | 1930 | 1510 | 2020 | 1920 | 1650 | 1750 | 6440 | 15700 | 5260 | 2630 | 2120 |
| 16 | 2170 | 1960 | 1660 | 1920 | 1940 | 1700 | 1980 | 6340 | 14500 | 4900 | 2960 | 1950 |
| 17 | 2150 | 1990 | 1830 | 1880 | 1820 | 1600 | 1970 | 6890 | 14000 | 4620 | 2870 | 2030 |
| 18 | 2110 | 2080 | 1810 | 1860 | 1820 | 1570 | 2150 | 6950 | 13600 | 4370 | 2700 | 1990 |
| 19 | 1980 | 2130 | 1700 | 1840 | 2050 | 1640 | 2380 | 6750 | 13700 | 4220 | 2520 | 1960 |
| 20 | 2010 | 2120 | 1670 | 1810 | 1850 | 1650 | 2710 | 7090 | 13200 | 4090 | 2380 | 1990 |
| 21 | 2260 | 2060 | 1710 | 1740 | 1840 | 1680 | 3030 | 7910 | 12600 | 3880 | 2240 | 2050 |
| 22 | 2380 | 1910 | 1810 | 1700 | 1820 | 1740 | 3530 | 9450 | 12200 | 3740 | 2260 | 1930 |
| 23 | 2370 | 1760 | 1930 | 1570 | 1790 | 1750 | 3820 | 11600 | 11900 | 3600 | 2310 | 1970 |
| 24 | 2350 | 1800 | 1820 | 1560 | 1740 | 1700 | 3950 | 12800 | 12000 | 3560 | 2400 | 2020 |
| 25 | 2420 | 2090 | 1750 | 1710 | 1650 | 1740 | 3800 | 12000 | 11600 | 3520 | 2490 | 1880 |
| 26 | 2450 | 2140 | 1750 | 1840 | 1650 | 1710 | 3980 | 11400 | 11500 | 3520 | 2590 | 1850 |
| 27 | 2340 | 2010 | 1780 | 1810 | 1680 | 1730 | 4050 | 10700 | 11400 | 3400 | 2630 | 1840 |
| 28 | 2360 | 1730 | 1790 | 1810 | 1700 | 1770 | 4230 | 10500 | 10700 | 3240 | 2470 | 1850 |
| 29 | 2360 | 1580 | 1720 | 1780 | 1740 | 1740 | 4570 | 11000 | 9490 | 3100 | 2360 | 1750 |
| 30 | 2370 | 1490 | 1580 | 1780 | --- | 1720 | 4980 | 10600 | 9140 | 3040 | 2220 | 1770 |
| 31 | 2310 | --- | 1480 | 1540 | --- | 1810 | --- | 10900 | --- | 3010 | 2210 | --- |
| TOTAL | 67410 | 60600 | 54810 | 55220 | 50310 | 52600 | 76650 | 252180 | 398630 | 167200 | 78660 | 61110 |
| MEAN | 2175 | 2020 | 1768 | 1781 | 1735 | 1697 | 2555 | 8135 | 13290 | 5394 | 2537 | 2037 |
| MAX | 2450 | 2210 | 2070 | 2020 | 2050 | 1810 | 4980 | 12800 | 18200 | 9390 | 2980 | 2390 |
| MIN | 1970 | 1490 | 1400 | 1540 | 1450 | 1570 | 1640 | 5020 | 9140 | 3010 | 2210 | 1750 |
| AC-FT | 133700 | 120200 | 108700 | 109500 | 99790 | 104300 | 152000 | 500200 | 790700 | 331600 | 156000 | 121200 |

CAL YR 1979 TOTAL 1459790 MEAN 3999 MAX 17100 MIN 1170 AC-FT 2895000
WTR YR 1980 TOTAL 1375380 MEAN 3758 MAX 18200 MIN 1400 AC-FT 2728000

## 09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--January to September 1980.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January to September 1980.
WATER TEMPERATURE: January to Septemer 1980.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Water-quality monitor located 2.1 mi (3.4 km) below gaging station, and records considered equivalent. Daily maximum and minimum specific-conductance data available in district office.

COOPERATION.--Chemical-quality data are furnished by Water and Power Resources Service.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCT: Maximum recorded, 1,330 micromhos Sept. 30; minimum, 248 micromhos July 6.
WATER TEMPERATURE: Maximum, 19°C Sept. 6; minimum, 0°C several days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | |
| 17... | -- | 1780 | 1050 | 7.5 | 3.0 | 220 | 100 | 68 | 12 | 130 | 3.8 |
| 21... | 1000 | 1682 | 1110 | 7.9 | .5 | 230 | 110 | 70 | 12 | 138 | 4.0 |
| 28... | 1045 | 1680 | 1090 | 7.9 | 2.0 | 230 | 110 | 69 | 13 | 131 | 3.8 |
| FEB | | | | | | | | | | | |
| 04... | 1045 | 1700 | 1070 | 8.2 | 3.0 | 220 | 100 | 67 | 12 | 136 | 4.0 |
| 13... | 0910 | 1600 | 1210 | 8.0 | 1.0 | 240 | 120 | 74 | 14 | 156 | 4.4 |
| 21... | 1050 | 1770 | 1090 | 8.2 | 3.5 | 230 | 110 | 70 | 13 | 132 | 3.8 |
| 29... | 1230 | 1700 | 1090 | 8.2 | 5.0 | 240 | 110 | 71 | 14 | 133 | 3.8 |
| MAR | | | | | | | | | | | |
| 06... | 1400 | 1720 | 1090 | 8.2 | 6.0 | 230 | 110 | 68 | 13 | 136 | 3.9 |
| 17... | 1010 | 1600 | 1110 | 7.8 | 2.0 | 230 | 110 | 69 | 14 | 138 | 3.9 |
| 18... | -- | 1530 | 1080 | 7.7 | 4.0 | 230 | 110 | 70 | 14 | 132 | 3.8 |
| 27... | 1500 | 1730 | 1020 | 8.3 | 7.5 | 220 | 110 | 67 | 13 | 129 | 3.8 |
| APR | | | | | | | | | | | |
| 01... | 1415 | 1640 | 1030 | 8.3 | 7.0 | 210 | 99 | 64 | 12 | 131 | 3.9 |
| 08... | 1315 | 1670 | 1010 | 8.3 | 7.0 | 220 | 110 | 67 | 13 | 128 | 3.7 |
| 17... | 1245 | 2010 | 964 | 8.1 | 10.5 | 220 | 98 | 67 | 12 | 107 | 3.1 |
| 25... | 1445 | 3800 | 649 | 8.0 | 9.0 | 180 | 78 | 52 | 12 | 62 | 2.0 |
| 28... | 1045 | 4160 | 578 | 7.9 | 8.5 | 160 | 58 | 45 | 10 | 52 | 1.7 |
| MAY | | | | | | | | | | | |
| 08... | 1000 | 8020 | 391 | 7.5 | 9.0 | 130 | 42 | 38 | 7.7 | 29 | 1.1 |
| 13... | 1010 | 7380 | 414 | 7.5 | 8.5 | 130 | 39 | 39 | 7.8 | 33 | 1.3 |
| 23... | 1100 | 12000 | 317 | 8.1 | 10.5 | 110 | 29 | 33 | 6.5 | 20 | 1.0 |
| 30... | 1545 | 10550 | 321 | 7.4 | 10.0 | 100 | 29 | 31 | 6.2 | 23 | 1.0 |
| JUN | | | | | | | | | | | |
| 02... | 1110 | 10900 | 318 | 7.4 | 9.0 | 100 | 28 | 31 | 6.2 | 21 | 1.0 |
| 13... | 1430 | 17100 | 244 | 8.2 | 10.5 | 87 | 19 | 27 | 4.6 | 14 | 1.0 |
| 16... | 1025 | 14500 | 271 | 8.2 | 10.0 | 90 | 23 | 27 | 5.1 | 17 | 1.0 |
| 25... | 1130 | 11200 | 305 | 7.9 | 11.5 | 97 | 30 | 30 | 5.4 | 21 | 1.0 |
| JUL | | | | | | | | | | | |
| 03... | 1000 | 9500 | 373 | 8.1 | 13.0 | 110 | 36 | 35 | 6.2 | 27 | 1.1 |
| 11... | 1445 | 5900 | 523 | 7.7 | 16.0 | 150 | 55 | 44 | 8.8 | 47 | 1.7 |
| 14... | 1030 | 5500 | 549 | 7.7 | 15.0 | 160 | 58 | 47 | 9.3 | 48 | 1.7 |
| 25... | 1515 | 3560 | 746 | 7.9 | 18.0 | 190 | 76 | 59 | 10 | 79 | 2.5 |
| 31... | 1800 | 2990 | 842 | 8.1 | 20.5 | 210 | 92 | 66 | 11 | 89 | 2.7 |
| AUG | | | | | | | | | | | |
| 07... | 1330 | 2640 | 940 | 8.1 | 19.0 | 220 | 92 | 68 | 12 | 102 | 3.0 |
| 13... | 1305 | 2270 | 1010 | 8.1 | 19.0 | 230 | 96 | 69 | 12 | 119 | 3.4 |
| 22... | 1350 | 2240 | 1000 | 8.3 | 17.0 | 230 | 100 | 69 | 13 | 117 | 3.4 |
| 29... | 1500 | 2380 | 957 | 8.3 | 16.5 | 220 | 95 | 67 | 12 | 114 | 1.1 |
| SEP | | | | | | | | | | | |
| 02... | 1040 | 2140 | 1020 | 8.1 | 14.0 | 230 | 99 | 69 | 12 | 119 | 3.4 |
| 11... | 1115 | 2550 | 946 | 8.1 | 15.5 | 220 | 86 | 66 | 12 | 104 | 3.1 |
| 18... | 1240 | 1990 | 1040 | 8.2 | 14.5 | 230 | 110 | 70 | 13 | 123 | 3.5 |
| 25... | 1220 | 1880 | 1020 | 8.0 | 13.0 | 240 | 110 | 74 | 14 | 127 | 3.5 |

## 09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | BICAR-BONATE (MG/L AS HCO3) | CAR-BONATE (MG/L AS CO3) | ALKA-LINITY (MG/L AS CACO3) | CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | |
| 17... | 5.9 | 143 | 0 | 117 | 7.2 | 125 | 184 | 593 | .81 | 2850 |
| 21... | 5.1 | 146 | 0 | 120 | 2.9 | 127 | 200 | 629 | .86 | 2860 |
| 28... | 5.5 | 146 | 0 | 120 | 2.9 | 127 | 198 | 620 | .84 | 2810 |
| FEB | | | | | | | | | | |
| 04... | 5.5 | 143 | 0 | 117 | 1.4 | 115 | 190 | 608 | .83 | 2790 |
| 13... | 5.9 | 154 | 0 | 126 | 2.5 | 140 | 232 | 700 | .95 | 3020 |
| 21... | 5.9 | 144 | 0 | 118 | 1.5 | 130 | 191 | 626 | .85 | 2990 |
| 29... | 5.1 | 149 | 0 | 123 | 1.5 | 142 | 197 | 635 | .86 | 2920 |
| MAR | | | | | | | | | | |
| 06... | 5.9 | 145 | 0 | 119 | 1.5 | 127 | 199 | 629 | .86 | 2920 |
| 17... | 5.9 | 146 | 0 | 120 | 3.7 | 145 | 200 | 635 | .86 | 2740 |
| 18... | 5.9 | 149 | 0 | 123 | 4.8 | 125 | 197 | 620 | .84 | 2560 |
| 27... | 5.5 | 135 | 2 | 115 | 1.1 | 121 | 181 | 596 | .81 | 2780 |
| APR | | | | | | | | | | |
| 01... | 5.5 | 131 | 3 | 113 | 1.1 | 125 | 184 | 592 | .81 | 2620 |
| 08... | 5.5 | 130 | 4 | 115 | 1.1 | 125 | 181 | 589 | .80 | 2660 |
| 17... | 4.7 | 149 | 0 | 122 | 1.9 | 99 | 154 | 570 | .78 | 3090 |
| 25... | 4.3 | 127 | 0 | 104 | 2.0 | 104 | 78 | 409 | .56 | 4200 |
| 29... | 3.9 | 122 | 0 | 100 | 2.5 | 80 | 69 | 343 | .47 | 3850 |
| MAY | | | | | | | | | | |
| 08... | 3.1 | 106 | 0 | 87 | 5.3 | 56 | 37 | 255 | .35 | 5520 |
| 13... | 3.1 | 110 | 0 | 90 | 5.6 | 51 | 43 | 258 | .35 | 5140 |
| 23... | 3.0 | 101 | 0 | 83 | 1.3 | 40 | 25 | 214 | .29 | 6930 |
| 30... | 2.0 | 91 | 0 | 75 | 5.8 | 32 | 34 | 198 | .27 | 5640 |
| JUN | | | | | | | | | | |
| 02... | 2.0 | 91 | 0 | 75 | 5.8 | 39 | 29 | 193 | .26 | 5680 |
| 13... | 1.0 | 83 | 0 | 68 | .8 | 29 | 18 | 151 | .21 | 6970 |
| 16... | 2.0 | 81 | 0 | 67 | .8 | 34 | 22 | 171 | .23 | 6700 |
| 25... | 2.0 | 82 | 0 | 68 | 1.7 | 35 | 28 | 193 | .26 | 5840 |
| JUL | | | | | | | | | | |
| 03... | 2.0 | 93 | 0 | 77 | 1.2 | 46 | 38 | 210 | .29 | 5390 |
| 11... | 2.3 | 114 | 0 | 93 | 3.6 | 70 | 66 | 254 | .35 | 4050 |
| 14... | 2.7 | 120 | 0 | 98 | 3.8 | 77 | 66 | 265 | .36 | 3940 |
| 25... | 3.1 | 142 | 0 | 116 | 2.9 | 97 | 109 | 446 | .61 | 4290 |
| 31... | 3.9 | 149 | 0 | 122 | 1.9 | 110 | 124 | 497 | .68 | 4010 |
| AUG | | | | | | | | | | |
| 07... | 4.3 | 162 | 0 | 133 | 2.1 | 108 | 151 | 545 | .74 | 3890 |
| 13... | 4.7 | 159 | 0 | 130 | 2.0 | 110 | 165 | 595 | .81 | 3650 |
| 22... | 4.7 | 145 | 4 | 126 | 1.2 | 125 | 163 | 586 | .80 | 3540 |
| 29... | 4.7 | 117 | 17 | 125 | 1.2 | 122 | 160 | 558 | .76 | 3590 |
| SEP | | | | | | | | | | |
| 02... | 4.7 | 156 | 0 | 128 | 2.0 | 120 | 172 | 600 | .82 | 3470 |
| 11... | 4.7 | 159 | 0 | 130 | 2.0 | 110 | 144 | 553 | .75 | 3810 |
| 18... | 4.7 | 153 | 0 | 125 | 1.5 | 134 | 170 | 597 | .81 | 3210 |
| 25... | 4.7 | 159 | 0 | 130 | 2.5 | 122 | 176 | 609 | .83 | 3090 |

## 09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | --- | 1160 | 1090 | 1030 | 488 | 331 | 360 | 841 | 1080 |
| 2 | | | | --- | 1140 | 1110 | 1050 | 504 | 326 | 375 | 861 | 1020 |
| 3 | | | | --- | 1090 | 1100 | 1010 | 483 | 288 | 392 | 882 | 859 |
| 4 | | | | --- | 1080 | 1090 | 1030 | 466 | 279 | 399 | 902 | 873 |
| 5 | | | | --- | 1110 | 1090 | 1030 | 450 | 258 | 423 | 921 | 901 |
| 6 | | | | --- | 1110 | 1090 | 1020 | 430 | 257 | 444 | 938 | 928 |
| 7 | | | | --- | 1110 | 1080 | 1010 | 420 | 272 | 459 | 945 | 885 |
| 8 | | | | --- | 1100 | 1090 | 1020 | 400 | 286 | 475 | 954 | 877 |
| 9 | | | | --- | 1110 | 1100 | 1040 | 410 | 292 | 490 | 963 | 870 |
| 10 | | | | --- | 1120 | 1110 | 1040 | 422 | 291 | 505 | 972 | 942 |
| 11 | | | | --- | 1120 | 1100 | 1020 | 435 | 276 | 520 | 982 | 822 |
| 12 | | | | --- | 1130 | 1110 | 1030 | 446 | 262 | 578 | 991 | 757 |
| 13 | | | | --- | 1130 | 1080 | 1040 | 457 | 247 | 569 | 1000 | 803 |
| 14 | | | | --- | 1130 | 1140 | 1040 | 476 | 255 | 569 | 1000 | 860 |
| 15 | | | | --- | 1060 | 1100 | 1040 | 494 | 262 | 571 | 990 | 913 |
| 16 | | | | --- | 1030 | 1040 | 1000 | 507 | 270 | 611 | 985 | 936 |
| 17 | | | | --- | 1090 | 1050 | 948 | 483 | 274 | 644 | 981 | 989 |
| 18 | | | | 1200 | 1090 | 1080 | 914 | 482 | 280 | 672 | 976 | 1010 |
| 19 | | | | 1220 | 1080 | 1070 | 864 | 506 | 280 | 697 | 984 | 1010 |
| 20 | | | | 1170 | 1070 | 1070 | 810 | 484 | 285 | 714 | 988 | 1060 |
| 21 | | | | 1150 | 1080 | 1060 | 758 | 439 | 290 | 740 | 989 | 1030 |
| 22 | | | | 1170 | 1080 | 1040 | 688 | 374 | 294 | 736 | 990 | 1060 |
| 23 | | | | 1170 | 1080 | 1040 | 658 | 318 | 298 | 746 | 982 | 1080 |
| 24 | | | | 1180 | 1100 | 1060 | 632 | 394 | 303 | 750 | 975 | 1120 |
| 25 | | | | 1190 | 1080 | 1050 | 632 | 288 | 307 | 770 | 967 | 1050 |
| 26 | | | | 1130 | 1090 | 1060 | 588 | 297 | 310 | 786 | 960 | 962 |
| 27 | | | | 1130 | 1160 | 1040 | 619 | 315 | 310 | 804 | 950 | 1060 |
| 28 | | | | 1110 | 1100 | 1050 | 606 | 329 | 319 | 814 | 945 | 1130 |
| 29 | | | | 1110 | 1100 | 1030 | 560 | 332 | 320 | 826 | 933 | 1230 |
| 30 | | | | 1170 | --- | 1020 | 504 | 331 | 346 | 839 | 1010 | 1060 |
| 31 | | | | 1150 | --- | 1010 | --- | 336 | --- | 851 | 979 | --- |

### 09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | | | | | | | --- | --- | 3.0 | .5 | 5.0 | 3.0 |
| 2 | | | | | | | --- | --- | 3.0 | 1.5 | 4.5 | 2.5 |
| 3 | | | | | | | --- | --- | 3.5 | 2.0 | 4.5 | 3.5 |
| 4 | | | | | | | --- | --- | 5.0 | 3.5 | 5.0 | 3.0 |
| 5 | | | | | | | --- | --- | 4.5 | 3.0 | 5.5 | 3.5 |
| 6 | | | | | | | --- | --- | 4.0 | 2.5 | 5.5 | 4.0 |
| 7 | | | | | | | --- | --- | 4.0 | 3.0 | 4.0 | 3.0 |
| 8 | | | | | | | --- | --- | 3.0 | 1.5 | 5.5 | 3.5 |
| 9 | | | | | | | --- | --- | 1.5 | .0 | 5.5 | .0 |
| 10 | | | | | | | --- | --- | 1.5 | .0 | 6.0 | .0 |
| 11 | | | | | | | --- | --- | 1.5 | .0 | 5.5 | 1.5 |
| 12 | | | | | | | --- | --- | 1.5 | .0 | 5.0 | 3.5 |
| 13 | | | | | | | --- | --- | 2.5 | 1.0 | 5.5 | 3.0 |
| 14 | | | | | | | --- | --- | 2.5 | 1.5 | 6.5 | 3.0 |
| 15 | | | | | | | --- | --- | 3.5 | 2.5 | 5.5 | 4.5 |
| 16 | | | | | | | --- | --- | 4.0 | 3.0 | 5.5 | 3.0 |
| 17 | | | | | | | --- | --- | 3.5 | 2.5 | 5.0 | 2.0 |
| 18 | | | | | | | 9.0 | 4.0 | 3.5 | 3.0 | 5.5 | 2.0 |
| 19 | | | | | | | 8.5 | 5.0 | 4.0 | 3.0 | 7.0 | 3.5 |
| 20 | | | | | | | 5.5 | 4.0 | 4.0 | 2.5 | 7.0 | 4.0 |
| 21 | | | | | | | 5.0 | 3.0 | 4.0 | 2.5 | 7.0 | 4.5 |
| 22 | | | | | | | 4.5 | 3.0 | 4.5 | 3.5 | 7.5 | 5.5 |
| 23 | | | | | | | 4.0 | 2.0 | 3.5 | 2.5 | 7.0 | 5.5 |
| 24 | | | | | | | 4.0 | 2.5 | 4.5 | 2.5 | 7.0 | 4.5 |
| 25 | | | | | | | 4.0 | 2.5 | 3.5 | 1.5 | 6.5 | 5.0 |
| 26 | | | | | | | 4.5 | 3.0 | 4.0 | 1.5 | 7.0 | 4.5 |
| 27 | | | | | | | 4.0 | 3.5 | 4.5 | 2.0 | 6.5 | 4.0 |
| 28 | | | | | | | 4.0 | 3.5 | 5.0 | 2.5 | 5.5 | 4.0 |
| 29 | | | | | | | 4.0 | 3.0 | 5.0 | 3.5 | 5.5 | 3.5 |
| 30 | | | | | | | 4.0 | 2.0 | --- | --- | 5.0 | 3.0 |
| 31 | | | | | | | 2.5 | .5 | --- | --- | 3.5 | 2.5 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 6.0 | 2.0 | 8.5 | 7.0 | 10.5 | 9.0 | --- | --- | 14.5 | 14.0 | 16.0 | 13.0 |
| 2 | 5.5 | 4.5 | 9.0 | 7.0 | 11.5 | 9.0 | --- | --- | 14.5 | 13.5 | 17.5 | 13.5 |
| 3 | 7.0 | 4.0 | 9.0 | 7.5 | 12.5 | 10.0 | 15.5 | 13.5 | 14.5 | 14.0 | 17.5 | 14.0 |
| 4 | 8.5 | 5.5 | --- | --- | 12.0 | 10.0 | 15.5 | 13.0 | 14.5 | 13.5 | 18.0 | 14.0 |
| 5 | 8.0 | 6.5 | --- | --- | 12.0 | 10.0 | 15.5 | 12.5 | 14.5 | 13.5 | 18.5 | 14.5 |
| 6 | 8.5 | 7.0 | --- | --- | 11.5 | 9.5 | 15.5 | 13.0 | 14.5 | 14.0 | 19.0 | 16.0 |
| 7 | 7.0 | 5.5 | --- | --- | 12.5 | 9.5 | 15.5 | 14.0 | --- | --- | 18.0 | 16.0 |
| 8 | 7.5 | 4.0 | --- | --- | 13.0 | 10.0 | 16.0 | 14.0 | --- | --- | 17.5 | 15.5 |
| 9 | 8.5 | 5.0 | --- | --- | 13.5 | 10.0 | 17.0 | 14.0 | --- | --- | 17.0 | 14.5 |
| 10 | 9.0 | 7.0 | --- | --- | 13.0 | 10.0 | 17.0 | 15.0 | --- | --- | 17.0 | 15.0 |
| 11 | 7.5 | 6.0 | --- | --- | 13.0 | 10.0 | 18.0 | 14.5 | --- | --- | 16.5 | 14.0 |
| 12 | 8.0 | 5.0 | --- | --- | 14.0 | 10.5 | 17.5 | 15.5 | --- | --- | 17.0 | 14.5 |
| 13 | 8.5 | 5.5 | 9.5 | 8.0 | --- | --- | 17.0 | 14.5 | 16.0 | --- | 16.0 | 14.0 |
| 14 | 9.5 | 6.0 | 9.5 | 8.0 | --- | --- | 17.5 | 14.5 | 16.0 | 15.5 | 16.5 | 13.0 |
| 15 | 10.5 | 7.0 | 10.0 | 8.5 | --- | --- | 18.0 | 14.5 | 16.0 | 15.5 | 16.5 | 13.5 |
| 16 | 10.5 | 7.5 | 10.5 | 9.0 | --- | --- | 18.0 | 14.5 | 16.0 | 14.5 | 17.0 | 14.0 |
| 17 | 11.0 | 7.5 | 10.5 | 9.0 | --- | --- | 18.5 | 15.5 | 15.0 | 14.0 | 16.0 | 13.0 |
| 18 | 11.0 | 7.5 | 10.5 | 8.0 | --- | --- | 18.5 | 16.0 | 15.0 | 14.0 | 17.0 | 12.5 |
| 19 | 11.0 | 8.0 | 11.5 | 9.0 | --- | --- | 18.0 | 16.0 | 14.5 | 14.0 | 16.0 | 14.0 |
| 20 | 11.0 | 8.5 | 12.0 | 10.0 | --- | --- | 18.0 | 15.5 | 14.5 | 13.5 | 17.5 | 14.5 |
| 21 | 11.0 | 8.5 | 13.5 | 10.0 | --- | --- | 18.0 | 15.0 | 14.5 | 13.0 | 16.0 | 13.5 |
| 22 | 10.0 | 8.5 | 13.5 | 10.5 | --- | --- | 16.0 | 14.0 | --- | --- | 15.5 | 13.0 |
| 23 | 9.5 | 7.5 | 13.0 | 10.5 | --- | --- | 15.0 | 13.5 | --- | --- | 14.5 | 11.5 |
| 24 | 8.0 | 7.0 | 12.0 | 10.0 | --- | --- | 14.0 | 12.5 | --- | --- | 14.5 | 11.0 |
| 25 | 9.0 | 5.5 | 10.0 | 8.0 | 15.5 | 12.5 | 14.0 | 12.0 | --- | --- | 14.5 | 11.0 |
| 26 | 9.0 | 7.0 | 10.0 | 7.5 | 15.5 | 12.5 | 13.5 | 12.0 | --- | --- | 15.0 | 11.0 |
| 27 | 9.5 | 6.5 | 11.0 | 8.5 | 15.5 | 13.0 | 13.5 | 12.5 | --- | --- | 15.5 | 11.5 |
| 28 | 9.5 | 7.0 | 11.5 | 9.0 | 15.0 | 12.5 | 13.5 | 12.0 | --- | --- | 15.5 | 12.0 |
| 29 | 9.0 | 7.0 | 11.0 | 9.0 | 15.5 | 12.5 | 13.0 | 12.0 | 18.0 | 15.5 | 15.0 | 12.0 |
| 30 | 9.0 | 7.5 | 11.0 | 9.0 | 15.5 | 13.5 | 13.5 | 12.0 | 16.0 | 14.0 | 15.5 | 11.0 |
| 31 | --- | --- | 11.0 | 9.0 | --- | --- | 15.5 | 12.0 | 15.5 | 13.0 | --- | --- |

## 09085200 CANYON CREEK ABOVE NEW CASTLE, CO

LOCATION.--Lat 39°36'19", long 107°24'21", in NW¼NW¼ sec.24, T.5 S., R.90 W., Garfield County, Hydrologic Unit 14010005, on right bank 200 ft (61 m) upstream from diversion headgate, 0.4 mi (0.6 km) upstream from East Canyon Creek, and 5.0 mi (8.0 km) northeast of New Castle.

DRAINAGE AREA.--23.8 $mi^2$ (61.6 $km^2$).

PERIOD OF RECORD.--March 1969 to current year.

REVISED RECORDS.--WRD Colo. 1973: 1972(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,180 ft (1,884 m), from topographic map.

REMARKS.--Records fair. A few small diversions for irrigation of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 50.5 $ft^3/s$ (1.430 $m^3/s$), 36,590 acre-ft/yr (45.1 $hm^3/yr$).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 932 $ft^3/s$ (26.4 $m^3/s$) June 8, 1975, gage height, 4.86 ft (1.481 m); maximum gage height, 5.15 ft (1.570 m) June 5, 1980; minimum daily discharge, 2.6 $ft^3/s$ (0.07 $m^3/s$) Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 780 $ft^3/s$ (22.1 $m^3/s$) at 1930 June 5, gage height, 5.15 ft (1.570 m), only peak above base of 350 $ft^3/s$ (9.9 $m^3/s$); minimum daily, 6.4 $ft^3/s$ (0.18 $m^3/s$) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | 11 | 9.0 | 9.5 | 9.5 | 10 | 14 | 74 | 226 | 135 | 27 | 18 |
| 2 | 13 | 12 | 10 | 9.5 | 9.6 | 10 | 14 | 71 | 212 | 118 | 27 | 18 |
| 3 | 13 | 13 | 10 | 9.4 | 9.5 | 10 | 14 | 72 | 236 | 108 | 27 | 18 |
| 4 | 13 | 13 | 10 | 9.5 | 9.5 | 10 | 15 | 79 | 367 | 97 | 26 | 19 |
| 5 | 13 | 12 | 10 | 9.5 | 9.4 | 10 | 15 | 82 | 575 | 90 | 26 | 21 |
| 6 | 12 | 12 | 10 | 9.3 | 9.5 | 10 | 15 | 92 | 480 | 82 | 26 | 20 |
| 7 | 12 | 12 | 10 | 9.3 | 9.4 | 10 | 16 | 97 | 460 | 75 | 26 | 20 |
| 8 | 12 | 12 | 10 | 9.3 | 8.9 | 10 | 15 | 101 | 435 | 70 | 24 | 19 |
| 9 | 12 | 11 | 10 | 9.4 | 9.1 | 10 | 16 | 105 | 344 | 66 | 22 | 19 |
| 10 | 12 | 11 | 10 | 8.4 | 9.0 | 10 | 16 | 101 | 336 | 61 | 20 | 18 |
| 11 | 12 | 11 | 10 | 6.4 | 9.0 | 10 | 16 | 97 | 445 | 58 | 20 | 19 |
| 12 | 12 | 11 | 8.5 | 10 | 9.5 | 10 | 16 | 97 | 410 | 55 | 20 | 18 |
| 13 | 12 | 10 | 10 | 10 | 9.5 | 10 | 16 | 84 | 385 | 54 | 19 | 17 |
| 14 | 12 | 11 | 10 | 10 | 9.6 | 10 | 17 | 80 | 336 | 53 | 20 | 17 |
| 15 | 11 | 11 | 10 | 10 | 9.5 | 10 | 18 | 77 | 302 | 49 | 23 | 16 |
| 16 | 11 | 11 | 10 | 10 | 9.5 | 10 | 20 | 77 | 282 | 46 | 23 | 16 |
| 17 | 11 | 11 | 10 | 10 | 9.8 | 9.8 | 22 | 84 | 271 | 44 | 20 | 16 |
| 18 | 11 | 11 | 10 | 10 | 9.5 | 11 | 25 | 82 | 278 | 42 | 21 | 16 |
| 19 | 11 | 11 | 10 | 9.6 | 9.5 | 11 | 29 | 88 | 271 | 41 | 20 | 15 |
| 20 | 12 | 11 | 10 | 9.5 | 9.5 | 12 | 37 | 103 | 243 | 40 | 20 | 16 |
| 21 | 14 | 10 | 10 | 9.5 | 7.2 | 12 | 44 | 138 | 236 | 38 | 21 | 15 |
| 22 | 12 | 8.1 | 10 | 8.9 | 7.8 | 13 | 53 | 188 | 226 | 36 | 20 | 15 |
| 23 | 12 | 8.1 | 9.9 | 8.4 | 10 | 13 | 56 | 200 | 222 | 35 | 19 | 15 |
| 24 | 12 | 9.2 | 9.9 | 9.3 | 10 | 13 | 60 | 200 | 212 | 33 | 21 | 14 |
| 25 | 12 | 10 | 9.7 | 9.5 | 10 | 14 | 59 | 167 | 194 | 31 | 21 | 14 |
| 26 | 12 | 10 | 9.7 | 9.5 | 10 | 14 | 63 | 152 | 176 | 31 | 20 | 13 |
| 27 | 12 | 10 | 9.7 | 9.5 | 10 | 14 | 64 | 173 | 164 | 30 | 19 | 13 |
| 28 | 11 | 9.5 | 9.5 | 9.7 | 10 | 14 | 73 | 209 | 148 | 30 | 18 | 12 |
| 29 | 12 | 9.0 | 9.5 | 9.2 | 10 | 13 | 79 | 215 | 132 | 29 | 18 | 12 |
| 30 | 13 | 9.0 | 9.5 | 8.7 | --- | 14 | 79 | 203 | 125 | 29 | 18 | 12 |
| 31 | 13 | --- | 9.7 | 9.5 | --- | 14 | --- | 226 | --- | 28 | 18 | --- |
| TOTAL | 376 | 320.9 | 304.6 | 290.3 | 273.3 | 351.8 | 996 | 3814 | 8729 | 1734 | 670 | 491 |
| MEAN | 12.1 | 10.7 | 9.83 | 9.36 | 9.42 | 11.3 | 33.2 | 123 | 291 | 55.9 | 21.6 | 16.4 |
| MAX | 14 | 13 | 10 | 10 | 10 | 14 | 79 | 226 | 575 | 135 | 27 | 21 |
| MIN | 11 | 8.1 | 8.5 | 6.4 | 7.2 | 9.8 | 14 | 71 | 125 | 28 | 18 | 12 |
| AC-FT | 746 | 637 | 604 | 576 | 542 | 698 | 1980 | 7570 | 17310 | 3440 | 1330 | 974 |

CAL YR 1979 TOTAL 18675.3 MEAN 51.2 MAX 449 MIN 2.6 AC-FT 37040
WTR YR 1980 TOTAL 18350.9 MEAN 50.1 MAX 575 MIN 6.4 AC-FT 36400

## 09085300 EAST CANYON CREEK NEAR NEW CASTLE, CO

LOCATION.--Lat 39°36'33", long 107°26'03", in SE¼SE¼ sec. 13, T. 5 S., R. 90 W., Garfield County, Hydrologic Unit 14010005, on left bank at upstream side of Forest Service stock trail bridge, 0.6 mi (1.0 km) upstream from Possum Creek, 0.9 mi (1.4 km) upstream from mouth, and 6.0 mi (9.7 km) northeast of New Castle.

DRAINAGE AREA.--15.1 mi² (39.1 km²).

PERIOD OF RECORD.--March 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,280 ft (1,914 m), from topographic map.

REMARKS.--Records fair except those for winter period and those for period of no gage-height record, which are poor. Small diversions above station for irrigation of hay meadows. Diversion by Buster No. 1 ditch about 100 ft (30 m) above gage began May 16, 1974; capacity of ditch, about 1.5 ft³/s (0.04 m³/s). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 23.4 ft³/s (0.663 m³/s), 16,950 acre-ft/yr (20.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 956 ft³/s (27.1 m³/s) June 11, 1978, gage height, 3.42 ft (1.042 m), from rating curve extended above 210 ft³/s (5.9 m³/s); minimum daily, 2.0 ft³/s (0.057 m³/s) Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; minimum daily, 2.8 ft³/s (0.079 m³/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.1 | 5.5 | 4.4 | 3.8 | 5.3 | 5.3 | 4.0 | 24 | 153 | 55 | 8.6 | 7.2 |
| 2 | 6.5 | 6.0 | 4.6 | 4.0 | 4.6 | 5.3 | 3.6 | 23 | 155 | 55 | 8.6 | 7.2 |
| 3 | 6.4 | 6.0 | 4.6 | 4.0 | 3.8 | 5.3 | 3.6 | 23 | 162 | 55 | 8.6 | 6.9 |
| 4 | 6.3 | 6.0 | 4.2 | 4.0 | 4.4 | 5.5 | 3.6 | 26 | 164 | 50 | 7.7 | 6.9 |
| 5 | 6.3 | 6.2 | 5.3 | 4.0 | 4.3 | 5.3 | 3.6 | 29 | 230 | 48 | 7.2 | 6.9 |
| 6 | 6.3 | 6.1 | 5.0 | 4.0 | 4.3 | 5.5 | 3.4 | 36 | 250 | 46 | 6.9 | 6.7 |
| 7 | 6.1 | 6.6 | 5.0 | 4.1 | 4.3 | 5.6 | 3.4 | 42 | 230 | 44 | 6.9 | 6.8 |
| 8 | 6.2 | 6.5 | 4.8 | 4.1 | 4.0 | 5.7 | 3.2 | 43 | 230 | 42 | 6.6 | 7.1 |
| 9 | 6.1 | 6.3 | 4.8 | 4.3 | 3.2 | 5.6 | 3.4 | 46 | 230 | 40 | 6.9 | 7.1 |
| 10 | 6.0 | 5.9 | 4.9 | 4.4 | 3.6 | 5.5 | 3.3 | 35 | 240 | 38 | 6.6 | 8.3 |
| 11 | 6.0 | 5.9 | 4.9 | 3.5 | 4.0 | 5.6 | 3.2 | 31 | 240 | 36 | 6.6 | 8.5 |
| 12 | 6.3 | 5.7 | 4.2 | 5.5 | 4.0 | 5.6 | 3.0 | 28 | 230 | 32 | 6.6 | 7.8 |
| 13 | 5.7 | 5.7 | 3.6 | 6.1 | 3.7 | 5.6 | 3.0 | 22 | 210 | 28 | 6.6 | 7.4 |
| 14 | 5.7 | 5.7 | 3.8 | 6.2 | 3.7 | 5.5 | 3.4 | 20 | 190 | 26 | 6.9 | 6.9 |
| 15 | 5.6 | 5.6 | 4.2 | 5.8 | 5.3 | 5.6 | 4.9 | 18 | 170 | 22 | 15 | 6.7 |
| 16 | 5.0 | 5.6 | 4.2 | 5.3 | 5.3 | 5.6 | 5.6 | 17 | 150 | 20 | 13 | 6.5 |
| 17 | 5.1 | 5.6 | 4.2 | 4.8 | 4.9 | 6.1 | 6.6 | 21 | 140 | 18 | 9.6 | 5.0 |
| 18 | 5.7 | 6.0 | 3.8 | 4.4 | 5.9 | 5.6 | 7.9 | 18 | 130 | 17 | 8.6 | 2.8 |
| 19 | 5.9 | 6.2 | 3.8 | 4.2 | 6.2 | 5.6 | 11 | 20 | 120 | 17 | 7.7 | 3.1 |
| 20 | 6.8 | 6.3 | 4.1 | 4.2 | 5.6 | 5.6 | 13 | 29 | 110 | 16 | 7.7 | 4.4 |
| 21 | 7.6 | 5.9 | 4.3 | 4.2 | 3.9 | 5.6 | 17 | 58 | 100 | 16 | 8.2 | 4.7 |
| 22 | 6.5 | 5.6 | 4.3 | 4.0 | 6.1 | 5.9 | 20 | 97 | 95 | 13 | 7.7 | 5.0 |
| 23 | 6.4 | 5.0 | 4.3 | 3.4 | 6.2 | 5.6 | 22 | 128 | 90 | 11 | 7.7 | 5.2 |
| 24 | 6.0 | 5.0 | 4.1 | 4.2 | 6.2 | 5.4 | 20 | 134 | 85 | 11 | 11 | 5.4 |
| 25 | 6.0 | 5.1 | 4.0 | 4.4 | 5.6 | 5.4 | 18 | 124 | 80 | 12 | 10 | 5.0 |
| 26 | 6.0 | 5.0 | 4.0 | 4.5 | 5.4 | 5.3 | 18 | 103 | 75 | 11 | 9.6 | 4.6 |
| 27 | 6.0 | 4.8 | 4.0 | 4.3 | 5.3 | 5.0 | 19 | 115 | 70 | 10 | 9.1 | 4.6 |
| 28 | 6.0 | 4.4 | 4.0 | 4.3 | 5.5 | 4.6 | 22 | 137 | 65 | 9.6 | 8.2 | 4.5 |
| 29 | 6.0 | 3.4 | 3.2 | 4.6 | 5.6 | 4.3 | 25 | 144 | 60 | 9.6 | 8.2 | 4.4 |
| 30 | 6.0 | 3.8 | 3.2 | 5.0 | --- | 4.3 | 25 | 140 | 60 | 11 | 8.2 | 4.3 |
| 31 | 5.9 | --- | 3.4 | 5.3 | --- | 4.0 | --- | 149 | --- | 9.6 | 7.7 | --- |
| TOTAL | 188.5 | 167.4 | 131.2 | 138.9 | 140.2 | 166.4 | 302.7 | 1880 | 4514 | 828.8 | 258.5 | 177.9 |
| MEAN | 6.08 | 5.58 | 4.23 | 4.48 | 4.83 | 5.37 | 10.1 | 60.6 | 150 | 26.7 | 8.34 | 5.93 |
| MAX | 7.6 | 6.6 | 5.3 | 6.2 | 6.2 | 6.1 | 25 | 149 | 250 | 55 | 15 | 8.5 |
| MIN | 5.0 | 3.4 | 3.2 | 3.4 | 3.2 | 4.0 | 3.0 | 17 | 60 | 9.6 | 6.6 | 2.8 |
| AC-FT | 374 | 332 | 260 | 276 | 278 | 330 | 600 | 3730 | 8950 | 1640 | 513 | 353 |

CAL YR 1979 TOTAL 9775.5 MEAN 26.8 MAX 205 MIN 2.0 AC-FT 19390
WTR YR 1980 TOTAL 8894.5 MEAN 24.3 MAX 250 MIN 2.8 AC-FT 17640

NOTE.--NO GAGE-HEIGHT RECORD JUNE 4 TO JULY 16.

## 09085400 POSSUM CREEK NEAR NEW CASTLE, CO

LOCATION.--Lat 39°35'52", long 107°25'24", in SW¼ sec.19, T.5 S., R.89 W., Garfield County, Hydrologic Unit 14010005, on right bank 1.0 mi (1.6 km) upstream from mouth and 6.0 mi (9.7 km) northeast of New Castle.

DRAINAGE AREA.--6.41 mi$^2$ (16.60 km$^2$).

PERIOD OF RECORD.--March 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,410 ft (1,954 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 5.87 ft$^3$/s (0.166 m$^3$/s), 4,250 acre-ft/yr (5.24 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85 ft$^3$/s (2.41 m$^3$/s) Aug. 25, 1977, gage height, 2.49 ft (0.759 m), from floodmarks in well; minimum daily, 0.44 ft$^3$/s (0.012 m$^3$/s) Feb. 22, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66 ft$^3$/s (1.869 m$^3$/s) at 0600 June 6, gage height, 2.31 ft (0.704 m), only peak above base of 30 ft$^3$/s (0.85 m$^3$/s); minimum daily, 0.75 ft$^3$/s (0.021 m$^3$/s) Nov. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.0 | 2.1 | 2.3 | 2.0 | 2.0 | 1.8 | 1.7 | 7.1 | 35 | 13 | 6.2 | 3.9 |
| 2 | 3.8 | 2.7 | 2.4 | 2.0 | 2.0 | 1.6 | 2.0 | 6.5 | 35 | 13 | 6.1 | 3.7 |
| 3 | 3.8 | 2.6 | 2.6 | 2.0 | 2.0 | 1.8 | 1.8 | 6.4 | 37 | 13 | 6.1 | 3.7 |
| 4 | 3.9 | 2.8 | 2.5 | 2.0 | 2.0 | 1.8 | 1.9 | 7.1 | 47 | 12 | 5.9 | 3.6 |
| 5 | 3.6 | 2.6 | 2.4 | 2.0 | 2.0 | 1.7 | 1.9 | 7.9 | 59 | 11 | 5.8 | 3.5 |
| 6 | 3.6 | 2.6 | 2.4 | 2.0 | 2.0 | 1.8 | 2.0 | 8.7 | 59 | 11 | 5.8 | 3.5 |
| 7 | 3.6 | 2.7 | 2.5 | 2.0 | 2.0 | 1.7 | 1.9 | 9.5 | 53 | 10 | 5.6 | 3.6 |
| 8 | 3.6 | 2.6 | 2.4 | 2.0 | 2.0 | 1.7 | 1.7 | 9.8 | 53 | 9.8 | 5.5 | 3.5 |
| 9 | 3.5 | 2.6 | 2.4 | 2.0 | 2.1 | 1.7 | 1.9 | 11 | 54 | 9.4 | 5.5 | 3.4 |
| 10 | 3.6 | 2.5 | 2.4 | 2.0 | 2.0 | 1.7 | 2.0 | 10 | 56 | 8.8 | 5.4 | 3.6 |
| 11 | 3.4 | 2.5 | 2.4 | 2.0 | 2.0 | 1.7 | 2.0 | 10 | 57 | 8.6 | 5.4 | 3.5 |
| 12 | 3.4 | 2.1 | 2.4 | 2.0 | 2.0 | 1.8 | 1.9 | 10 | 53 | 9.1 | 5.3 | 3.4 |
| 13 | 3.4 | 2.0 | 2.4 | 2.0 | 2.0 | 1.4 | 1.9 | 9.3 | 48 | 9.4 | 5.2 | 3.3 |
| 14 | 3.4 | 1.9 | 2.4 | 2.0 | 1.9 | 1.8 | 2.1 | 8.8 | 43 | 9.0 | 5.3 | 3.2 |
| 15 | 3.4 | 2.4 | 2.2 | 2.0 | 2.0 | 1.8 | 2.4 | 8.6 | 39 | 8.7 | 6.0 | 3.0 |
| 16 | 3.3 | 2.7 | 2.2 | 2.0 | 1.9 | 1.7 | 2.6 | 8.5 | 35 | 8.3 | 5.5 | 2.9 |
| 17 | 3.2 | 2.6 | 2.2 | 2.0 | 1.9 | 1.2 | 2.7 | 9.5 | 33 | 7.9 | 5.2 | 2.9 |
| 18 | 3.2 | 2.7 | 2.2 | 2.0 | 2.1 | 1.7 | 3.0 | 9.7 | 29 | 7.8 | 4.9 | 2.8 |
| 19 | 3.2 | 2.7 | 2.2 | 2.0 | 2.0 | 1.9 | 3.3 | 9.8 | 28 | 7.5 | 4.8 | 2.8 |
| 20 | 3.4 | 2.6 | 2.2 | 2.0 | 2.0 | 1.8 | 4.2 | 11 | 25 | 7.4 | 4.9 | 2.9 |
| 21 | 3.4 | 2.0 | 2.2 | 2.0 | 2.0 | 1.9 | 5.0 | 14 | 24 | 7.1 | 4.7 | 2.8 |
| 22 | 3.2 | .95 | 2.2 | 1.8 | 1.8 | 1.9 | 5.9 | 19 | 23 | 7.1 | 4.5 | 2.6 |
| 23 | 3.1 | .75 | 2.2 | 2.0 | 1.8 | 1.9 | 6.1 | 25 | 21 | 7.1 | 4.6 | 2.6 |
| 24 | 3.1 | 1.1 | 2.2 | 2.0 | 1.9 | 1.9 | 6.2 | 28 | 20 | 6.9 | 4.9 | 2.6 |
| 25 | 3.1 | 1.8 | 2.2 | 2.0 | 1.5 | 1.9 | 5.6 | 27 | 18 | 7.0 | 4.9 | 2.5 |
| 26 | 3.1 | 2.2 | 2.2 | 2.0 | 1.9 | 1.9 | 5.8 | 23 | 17 | 6.8 | 4.5 | 2.5 |
| 27 | 3.1 | 2.6 | 2.2 | 2.0 | 2.0 | 1.6 | 5.9 | 24 | 16 | 6.7 | 4.3 | 2.4 |
| 28 | 3.0 | 2.1 | 2.2 | 2.0 | 1.9 | 1.8 | 6.3 | 27 | 15 | 6.5 | 4.1 | 2.4 |
| 29 | 3.0 | 2.3 | 2.0 | 2.0 | 1.9 | 1.8 | 7.1 | 30 | 14 | 6.5 | 4.0 | 2.3 |
| 30 | 3.0 | 2.3 | 2.0 | 2.0 | --- | 1.9 | 7.6 | 30 | 14 | 6.4 | 4.0 | 2.2 |
| 31 | 2.7 | --- | 2.0 | 2.0 | --- | 1.7 | --- | 33 | --- | 6.2 | 4.0 | --- |
| TOTAL | 104.1 | 68.10 | 70.7 | 61.8 | 56.6 | 54.5 | 106.4 | 459.2 | 1060 | 269.0 | 158.9 | 91.6 |
| MEAN | 3.36 | 2.27 | 2.28 | 1.99 | 1.95 | 1.76 | 3.55 | 14.8 | 35.3 | 8.68 | 5.13 | 3.05 |
| MAX | 4.0 | 2.8 | 2.6 | 2.0 | 2.1 | 1.9 | 7.6 | 33 | 59 | 13 | 6.2 | 3.9 |
| MIN | 2.7 | .75 | 2.0 | 1.8 | 1.5 | 1.2 | 1.7 | 6.4 | 14 | 6.2 | 4.0 | 2.2 |
| AC-FT | 206 | 135 | 140 | 123 | 112 | 108 | 211 | 911 | 2100 | 534 | 315 | 182 |

CAL YR 1979 TOTAL 2779.70 MEAN 7.62 MAX 65 MIN .75 AC-FT 5510
WTR YR 1980 TOTAL 2560.90 MEAN 7.00 MAX 59 MIN .75 AC-FT 5080

NOTE.--NO GAGE-HEIGHT RECORD DEC. 12 TO FEB. 8.

## 09089500 WEST DIVIDE CREEK NEAR RAVEN, CO

LOCATION.--Lat 39°19'52", long 107°34'46", in W½ sec.29, T.8 S., R.91 W., Mesa County, Hydrologic Unit 14010005, on left bank 10 ft (3 m) downstream from private road bridge, 0.8 mi (1.3 km) upstream from Brook Creek, 8 mi (13 km) south of Raven, and 16 mi (26 km) south of Silt.

DRAINAGE AREA.--64.6 mi² (167.3 km²).

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,050 ft (2,149 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Natural flow of stream affected by water imported from Thompson Creek (Roaring Fork basin), Muddy Creek (Muddy Creek basin), and Buzzard Creek (Plateau Creek basin). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years, 31.5 ft³/s (0.892 m³/s), 22,820 acre-ft/yr (28.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 790 ft³/s (22.4 m³/s) May 12, 1962, gage height, 5.41 ft (1.649 m), from rating curve extended above 350 ft³/s (9.9 m³/s); maximum gage height, 5.45 ft (1.661 m) May 18, 1970; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 509 ft³/s (14.4 m³/s) at 0800 May 19, gage height, 4.94 ft (1.506 m), only peak above base of 160 ft³/s (4.53 m³/s); minimum daily, 0.42 ft³/s (0.012 m³/s) Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .54 | 1.8 | 1.0 | .86 | .88 | .88 | 6.6 | 117 | 260 | 72 | 2.7 | .78 |
| 2 | .57 | 2.0 | 1.0 | .86 | .88 | .88 | 4.9 | 123 | 240 | 86 | 2.5 | .76 |
| 3 | .63 | 2.0 | 1.0 | .86 | .88 | .88 | 5.3 | 189 | 220 | 59 | 1.8 | .74 |
| 4 | .73 | 1.9 | 1.0 | .86 | .88 | .88 | 5.6 | 224 | 240 | 39 | 1.5 | .72 |
| 5 | .90 | 1.8 | 1.0 | .88 | .87 | .90 | 5.5 | 213 | 261 | 40 | 1.3 | .72 |
| 6 | .86 | 1.7 | .98 | .94 | .87 | .90 | 6.2 | 216 | 251 | 35 | 1.0 | .73 |
| 7 | .89 | 1.7 | .98 | .88 | .87 | .90 | 6.2 | 227 | 222 | 30 | .90 | .99 |
| 8 | 1.1 | 1.6 | .96 | .88 | .87 | .90 | 7.8 | 275 | 202 | 27 | .76 | 1.3 |
| 9 | 1.2 | 1.5 | .96 | .86 | .86 | .90 | 8.8 | 205 | 194 | 30 | .98 | 1.6 |
| 10 | 1.3 | 1.5 | .96 | .86 | .86 | .90 | 7.8 | 178 | 195 | 25 | 2.1 | 2.1 |
| 11 | 1.5 | 1.4 | .96 | .86 | .86 | .90 | 7.9 | 176 | 184 | 24 | 5.7 | 3.6 |
| 12 | 1.6 | 1.3 | .96 | .86 | .85 | .92 | 9.4 | 196 | 168 | 22 | 3.8 | 3.7 |
| 13 | 1.8 | 1.3 | .96 | .88 | .85 | .94 | 9.4 | 251 | 149 | 21 | 2.6 | 2.6 |
| 14 | 1.9 | 1.2 | .96 | .88 | .85 | .96 | 11 | 251 | 133 | 19 | 1.7 | 1.9 |
| 15 | 2.0 | 1.2 | .96 | .88 | .85 | .98 | 13 | 233 | 118 | 18 | 1.3 | 1.3 |
| 16 | 2.4 | 1.1 | .96 | .88 | .85 | 1.0 | 17 | 260 | 109 | 17 | 1.3 | 1.0 |
| 17 | 2.4 | 1.1 | .96 | .88 | .85 | 1.8 | 21 | 314 | 115 | 16 | 1.1 | .76 |
| 18 | 2.5 | 1.1 | .96 | .88 | .85 | 3.0 | 32 | 332 | 111 | 14 | .96 | .55 |
| 19 | 2.8 | 1.1 | .96 | .88 | .85 | 3.9 | 47 | 414 | 106 | 12 | 2.3 | .44 |
| 20 | 3.2 | 1.1 | .96 | .88 | .84 | 4.2 | 78 | 403 | 95 | 9.7 | 5.3 | .46 |
| 21 | 5.2 | 1.1 | .96 | .88 | .85 | 4.9 | 98 | 326 | 101 | 8.6 | 4.2 | .42 |
| 22 | 4.7 | 1.1 | .94 | .88 | .85 | 5.5 | 103 | 281 | 94 | 8.0 | 3.0 | .44 |
| 23 | 4.0 | 1.1 | .94 | .89 | .85 | 5.5 | 105 | 257 | 88 | 7.2 | 2.2 | .52 |
| 24 | 4.0 | 1.1 | .95 | .86 | .86 | 7.5 | 84 | 272 | 86 | 6.1 | 1.7 | .53 |
| 25 | 4.3 | 1.0 | .96 | .84 | .87 | 5.3 | 91 | 290 | 79 | 5.2 | 1.4 | .57 |
| 26 | 3.9 | 1.0 | .98 | .85 | .88 | 5.9 | 94 | 257 | 90 | 4.8 | 1.5 | .60 |
| 27 | 3.7 | 1.0 | .94 | .88 | .88 | 6.5 | 102 | 266 | 88 | 4.6 | 1.4 | .51 |
| 28 | 3.5 | 1.0 | .94 | .88 | .88 | 7.6 | 119 | 260 | 82 | 3.9 | 1.2 | .49 |
| 29 | 3.5 | 1.0 | .90 | .89 | .88 | 7.0 | 134 | 251 | 69 | 3.8 | .93 | .46 |
| 30 | 3.7 | .96 | .88 | .88 | --- | 6.0 | 138 | 254 | 67 | 3.6 | .83 | .45 |
| 31 | 3.2 | --- | .86 | .88 | --- | 6.3 | --- | 260 | --- | 3.1 | .80 | --- |
| TOTAL | 74.52 | 39.76 | 29.69 | 27.10 | 25.02 | 95.52 | 1378.4 | 7771 | 4417 | 674.6 | 60.76 | 31.74 |
| MEAN | 2.40 | 1.33 | .96 | .87 | .86 | 3.08 | 45.9 | 251 | 147 | 21.8 | 1.96 | 1.06 |
| MAX | 5.2 | 2.0 | 1.0 | .94 | .88 | 7.6 | 138 | 414 | 261 | 86 | 5.7 | 3.7 |
| MIN | .54 | .96 | .86 | .84 | .84 | .88 | 4.9 | 117 | 67 | 3.1 | .76 | .42 |
| AC-FT | 148 | 79 | 59 | 54 | 50 | 189 | 2730 | 15410 | 8760 | 1340 | 121 | 63 |

CAL YR 1979 TOTAL 17382.07 MEAN 47.6 MAX 475 MIN .10 AC-FT 34480
WTR YR 1980 TOTAL 14625.11 MEAN 40.0 MAX 414 MIN .42 AC-FT 29010

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO MAR. 20.

## 09092500 BEAVER CREEK NEAR RIFLE, CO

LOCATION.--Lat 39°26'19", long 107°49'55", in NW¼NE¼ sec.1, T.7 S., R.94 W., Garfield County, Hydrologic Unit 14010005, on left bank 150 ft (46 m) upstream from unnamed tributary, 200 ft (61 m) upstream from road bridge, 4.0 mi (6.4 km) upstream from mouth, and 4.8 mi (7.7 km) southwest of Rifle.

DRAINAGE AREA.--7.90 mi² (20.46 km²).

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder and plank control. Altitude of gage is 6,685 ft (2,038 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation of about 170 acres (688,000 m²) below station and about 380 acres (1.54 km²) in Mann Creek basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--28 years, 4.59 ft³/s (0.130 m³/s), 3,320 acre-ft/yr (4.09 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85 ft³/s (2.41 m³/s) May 24, 1964, gage height, 4.00 ft (1.219 m), from rating curve extended above 52 ft³/s (1.5 m³/s); minimum daily, 0.24 ft³/s (0.007 m³/s) Dec. 21, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76 ft³/s (2.15 m³/s) at 0030 June 12, gage height, 3.91 ft (1.192 m), only peak above base of 25 ft³/s (0.71 m³/s); minimum daily, 0.55 ft³/s (0.016 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .82 | .88 | .89 | .82 | .80 | .72 | .76 | 6.1 | 39 | 27 | 2.6 | 1.5 |
| 2 | .82 | 1.0 | 1.0 | .82 | .82 | .72 | .85 | 4.4 | 36 | 31 | 2.6 | 1.5 |
| 3 | .77 | 1.1 | 1.2 | .82 | .82 | .72 | .74 | 4.0 | 33 | 27 | 2.6 | 1.3 |
| 4 | .72 | 1.2 | 1.1 | .82 | .82 | .72 | .74 | 3.8 | 39 | 22 | 2.4 | 1.2 |
| 5 | .72 | 1.2 | 1.0 | .82 | .82 | .72 | .83 | 4.3 | 43 | 19 | 2.3 | 1.2 |
| 6 | .72 | 1.4 | .99 | .82 | .82 | .72 | .95 | 5.4 | 42 | 16 | 2.2 | 1.2 |
| 7 | .69 | 1.2 | 1.0 | .82 | .82 | .72 | .85 | 7.2 | 39 | 15 | 2.1 | 1.2 |
| 8 | .55 | 1.3 | 1.0 | .82 | .82 | .72 | .97 | 8.4 | 38 | 14 | 2.0 | 1.2 |
| 9 | .67 | 1.3 | .93 | .82 | .76 | .72 | .88 | 9.9 | 38 | 12 | 1.9 | 1.3 |
| 10 | .75 | 1.3 | .93 | .80 | .78 | .72 | 1.1 | 12 | 42 | 11 | 1.8 | 1.3 |
| 11 | .94 | 1.3 | .93 | .81 | .80 | .72 | 1.1 | 12 | 43 | 9.9 | 1.9 | 1.4 |
| 12 | .92 | 1.3 | .93 | .82 | .80 | .73 | 1.0 | 11 | 42 | 9.1 | 1.7 | 1.0 |
| 13 | .94 | 1.3 | .86 | .82 | .80 | .70 | 1.1 | 9.1 | 43 | 8.3 | 1.9 | 1.0 |
| 14 | .95 | 1.2 | .82 | .99 | .82 | .72 | 1.2 | 8.3 | 42 | 8.1 | 2.4 | 1.0 |
| 15 | .93 | 1.2 | .85 | .96 | .82 | .72 | 1.7 | 7.8 | 39 | 6.6 | 3.2 | .85 |
| 16 | .93 | 1.3 | .88 | .82 | .82 | .72 | 1.9 | 7.2 | 35 | 5.9 | 2.6 | .72 |
| 17 | .91 | 1.2 | .88 | .82 | .83 | .72 | 2.1 | 9.3 | 33 | 5.2 | 2.2 | .72 |
| 18 | 1.0 | 1.2 | .88 | .82 | .89 | .76 | 2.6 | 8.7 | 34 | 5.2 | 2.0 | .77 |
| 19 | .96 | 1.2 | .80 | .82 | .96 | .79 | 3.2 | 9.6 | 37 | 5.9 | 1.9 | .78 |
| 20 | 1.4 | 1.2 | .89 | .82 | .93 | .76 | 3.8 | 12 | 38 | 5.5 | 2.0 | .88 |
| 21 | 1.6 | 1.2 | .90 | .82 | .85 | .76 | 3.7 | 18 | 36 | 5.0 | 1.9 | .82 |
| 22 | 1.1 | 1.1 | .93 | .73 | .82 | .82 | 4.0 | 26 | 34 | 4.8 | 1.8 | .82 |
| 23 | 1.3 | 1.1 | .93 | .72 | .82 | .82 | 4.0 | 34 | 32 | 4.6 | 1.9 | .80 |
| 24 | 1.4 | 1.2 | .93 | .72 | .82 | .82 | 3.9 | 34 | 30 | 4.4 | 2.7 | .74 |
| 25 | 1.3 | 1.3 | .99 | .72 | .82 | .82 | 3.4 | 26 | 27 | 4.3 | 2.2 | .65 |
| 26 | 1.3 | 1.1 | 1.1 | .73 | .72 | .75 | 3.6 | 24 | 27 | 3.8 | 2.1 | .62 |
| 27 | 1.2 | 1.0 | .95 | .72 | .72 | .74 | 3.9 | 27 | 26 | 3.5 | 1.8 | .62 |
| 28 | 1.1 | .95 | .93 | .72 | .72 | .74 | 4.7 | 34 | 24 | 3.3 | 1.7 | .62 |
| 29 | 1.3 | .93 | .85 | .76 | .72 | .72 | 5.2 | 35 | 22 | 3.1 | 1.7 | .62 |
| 30 | .93 | .85 | .82 | .82 | --- | .72 | 7.3 | 37 | 26 | 3.3 | 1.7 | .62 |
| 31 | .89 | --- | .82 | .78 | --- | .74 | --- | 39 | --- | 2.9 | 1.6 | --- |
| TOTAL | 30.53 | 35.01 | 28.91 | 24.92 | 23.56 | 22.99 | 72.07 | 494.5 | 1059 | 306.7 | 65.4 | 28.95 |
| MEAN | .98 | 1.17 | .93 | .80 | .81 | .74 | 2.40 | 16.0 | 35.3 | 9.89 | 2.11 | .97 |
| MAX | 1.6 | 1.4 | 1.2 | .99 | .96 | .82 | 7.3 | 39 | 43 | 31 | 3.2 | 1.5 |
| MIN | .55 | .85 | .80 | .72 | .72 | .70 | .74 | 3.8 | 22 | 2.9 | 1.6 | .62 |
| AC-FT | 61 | 69 | 57 | 49 | 47 | 46 | 143 | 981 | 2100 | 608 | 130 | 57 |

CAL YR 1979 TOTAL 2347.92 MEAN 6.43 MAX 56 MIN .51 AC-FT 4660
WTR YR 1980 TOTAL 2192.54 MEAN 5.99 MAX 43 MIN .55 AC-FT 4350

## 09092830 NORTHWATER CREEK NEAR ANVIL POINTS, CO

LOCATION.--Lat 39°37'13", long 108°00'44", in NE¼NE¼ sec.14, T.5 S., R.95 W., in Garfield County, Hydrologic Unit 14010006, on right bank 50 ft (15 m) downstream from mouth of Bear Gulch, 750 ft (229 m) upstream from mouth, and 8.5 mi (14 km) southwest of Rio Blanco.

DRAINAGE AREA.--12.6 mi² (32.6 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,420 ft (2,262 m), from topographic map.

REMARKS.--Records good except for winter period, which are poor. No diversions or regulation above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225 ft³/s (6.37 m³/s) May 17, 1979, gage height, 3.30 ft (1.006 m); minimum daily, 0.01 ft³/s ( 0.001 m³/s) Aug. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 90 ft³/s (2.55 m³/s) May 22, gage height, 3.56 ft (1.085 m); minimum daily, 0.50 ft³/s (0.014 m³/s) Dec. 29 to Jan. 3, Jan. 10-13, Jan. 31, Feb. 27 to Mar. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .75 | .95 | .60 | .50 | .52 | .50 | 1.3 | 51 | 20 | 3.5 | 1.8 | .74 |
| 2 | .75 | .95 | .60 | .50 | .54 | .50 | 1.3 | 49 | 15 | 3.6 | 1.8 | .74 |
| 3 | .75 | .95 | .60 | .50 | .54 | .50 | 1.3 | 54 | 14 | 3.7 | 1.7 | .74 |
| 4 | .74 | .89 | .60 | .52 | .54 | .52 | 1.7 | 60 | 12 | 3.2 | 1.6 | .74 |
| 5 | .75 | .76 | .60 | .54 | .54 | .54 | 2.4 | 68 | 12 | 3.0 | 1.6 | .74 |
| 6 | .75 | .75 | .60 | .54 | .54 | .54 | 2.5 | 67 | 11 | 3.0 | 1.6 | .74 |
| 7 | .73 | .81 | .60 | .54 | .52 | .51 | 2.3 | 75 | 9.2 | 3.0 | 1.4 | .77 |
| 8 | .75 | .88 | .60 | .54 | .52 | .52 | 2.3 | 79 | 8.2 | 3.1 | 1.4 | .74 |
| 9 | .75 | .85 | .60 | .52 | .54 | .54 | 2.5 | 72 | 7.5 | 2.9 | 1.3 | .77 |
| 10 | .75 | .81 | .62 | .50 | .56 | .54 | 2.9 | 64 | 6.8 | 2.8 | 1.3 | .99 |
| 11 | .75 | .75 | .64 | .50 | .56 | .60 | 2.7 | 74 | 6.4 | 2.7 | 1.2 | .86 |
| 12 | .75 | .85 | .64 | .50 | .56 | .64 | 2.5 | 80 | 6.1 | 2.7 | 1.1 | .78 |
| 13 | .75 | .95 | .64 | .50 | .56 | .70 | 2.5 | 68 | 6.0 | 2.7 | 1.2 | .74 |
| 14 | .77 | .95 | .62 | .52 | .56 | .76 | 3.2 | 56 | 5.8 | 2.8 | 1.2 | .74 |
| 15 | .75 | .95 | .60 | .54 | .56 | 1.0 | 3.9 | 59 | 5.5 | 2.6 | 1.7 | .74 |
| 16 | .75 | .95 | .58 | .56 | .56 | 1.1 | 4.2 | 61 | 5.5 | 2.4 | 1.3 | .70 |
| 17 | .75 | .95 | .56 | .58 | .56 | 1.1 | 4.7 | 60 | 5.2 | 2.4 | 1.2 | .70 |
| 18 | .77 | .87 | .54 | .58 | .56 | 1.2 | 6.1 | 59 | 5.2 | 2.3 | 1.1 | .70 |
| 19 | .78 | .87 | .54 | .58 | .56 | 1.3 | 9.4 | 53 | 5.2 | 2.2 | 1.0 | .70 |
| 20 | 1.1 | .81 | .54 | .56 | .56 | 1.4 | 14 | 48 | 5.0 | 2.2 | 1.0 | .74 |
| 21 | 1.2 | .75 | .54 | .54 | .56 | 1.5 | 20 | 52 | 4.9 | 2.1 | .96 | .74 |
| 22 | .97 | .69 | .54 | .54 | .56 | 1.5 | 37 | 81 | 4.6 | 2.1 | .95 | .74 |
| 23 | .99 | .65 | .56 | .54 | .56 | 1.3 | 47 | 69 | 4.4 | 2.1 | .98 | .74 |
| 24 | 1.0 | .65 | .58 | .56 | .56 | 1.4 | 47 | 63 | 4.2 | 2.1 | 1.2 | .74 |
| 25 | .96 | .66 | .58 | .58 | .54 | 1.4 | 43 | 50 | 4.0 | 2.6 | 1.0 | .74 |
| 26 | 1.0 | .64 | .56 | .58 | .52 | 1.3 | 40 | 45 | 3.8 | 2.4 | .99 | .74 |
| 27 | .86 | .62 | .54 | .56 | .50 | 1.4 | 39 | 35 | 3.7 | 2.1 | .92 | .74 |
| 28 | .82 | .60 | .52 | .56 | .50 | 1.5 | 43 | 30 | 3.7 | 2.0 | .86 | .74 |
| 29 | 1.0 | .60 | .50 | .54 | .50 | 1.3 | 51 | 27 | 3.5 | 1.9 | .78 | .70 |
| 30 | .69 | .60 | .50 | .52 | --- | 1.3 | 53 | 24 | 3.4 | 2.2 | .74 | .70 |
| 31 | .77 | --- | .50 | .50 | --- | 1.3 | --- | 21 | --- | 2.0 | .74 | --- |
| TOTAL | 25.85 | 23.96 | 17.84 | 16.64 | 15.76 | 30.21 | 493.7 | 1754 | 211.8 | 80.4 | 37.62 | 22.43 |
| MEAN | .83 | .80 | .58 | .54 | .54 | .97 | 16.5 | 56.6 | 7.06 | 2.59 | 1.21 | .75 |
| MAX | 1.2 | .95 | .64 | .58 | .56 | 1.5 | 53 | 81 | 20 | 3.7 | 1.8 | .99 |
| MIN | .73 | .60 | .50 | .50 | .50 | .50 | 1.3 | 21 | 3.4 | 1.9 | .74 | .70 |
| AC-FT | 51 | 48 | 35 | 33 | 31 | 60 | 979 | 3480 | 420 | 159 | 75 | 44 |

CAL YR 1979 TOTAL 2729.26 MEAN 7.48 MAX 130 MIN .20 AC-FT 5410
WTR YR 1980 TOTAL 2730.21 MEAN 7.46 MAX 81 MIN .50 AC-FT 5420

NOTE.--NO GAGE-HEIGHT RECORD NOV. 22 TO MAR. 6.

## 09092830 NORTHWATER CREEK NEAR ANVIL POINTS, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW. INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE. WATER (DEG C) | OXYGEN. DISSOLVED (MG/L) | HARDNESS (MG/L AS CACO3) | HARDNESS. NONCARBONATE (MG/L CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM. DISSOLVED (MG/L AS MG) | SODIUM. DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | 1220 | .89 | 535 | 8.1 | 11.0 | 8.7 | 210 | 0 | 52 | 20 | 33 | 1.0 |
| 30... | 1130 | .87 | 532 | 8.4 | 4.0 | 10.9 | 210 | 0 | 51 | 19 | 31 | .9 |
| DEC | | | | | | | | | | | | |
| 06... | 1015 | .70 | 530 | 8.2 | 2.0 | 10.1 | 230 | 0 | 56 | 22 | 36 | 1.0 |
| JAN | | | | | | | | | | | | |
| 17... | 1105 | 2.2 | 545 | 8.1 | 2.5 | 10.1 | 230 | 0 | 55 | 21 | 36 | 1.0 |
| APR | | | | | | | | | | | | |
| 08... | 1100 | 2.2 | 519 | 8.0 | 4.0 | 10.6 | 210 | 0 | 52 | 20 | 33 | 1.0 |
| MAY | | | | | | | | | | | | |
| 02... | 0730 | 45 | 390 | 7.9 | -- | 10.0 | 160 | 0 | 42 | 14 | 24 | .8 |
| JUL | | | | | | | | | | | | |
| 08... | 1430 | 3.1 | 490 | 8.2 | -- | 7.6 | 210 | -- | 51 | 19 | 30 | .9 |
| AUG | | | | | | | | | | | | |
| 06... | 1215 | 1.6 | 507 | 8.3 | 14.0 | -- | 200 | 0 | 50 | 19 | 32 | 1.0 |

| DATE | POTASSIUM. DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE. DISSOLVED (MG/L AS CL) | FLUORIDE. DISSOLVED (MG/L AS F) | SILICA. DISSOLVED (MG/L AS SIO2) | SOLIDS. SUM OF CONSTITUENTS. DISSOLVED (MG/L) | SOLIDS. DISSOLVED (TONS PER AC-FT) | SOLIDS. DISSOLVED (TONS PER DAY) | NITROGEN. NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS. ORTHOPHOSPHATE DISSOL. (MG/L AS P) | ARSENIC DISSOLVED (UG/L AS AS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | .7 | 250 | 41 | 1.7 | .3 | 15 | 315 | .43 | .76 | .08 | .040 | 4 |
| 30... | .5 | 250 | 38 | 1.8 | .2 | 14 | 307 | .42 | .72 | .09 | .040 | 4 |
| DEC | | | | | | | | | | | | |
| 06... | .7 | 260 | -- | 1.5 | .2 | 15 | -- | -- | -- | .23 | .030 | 3 |
| JAN | | | | | | | | | | | | |
| 17... | .9 | 260 | 23 | 3.2 | .2 | 15 | 313 | .43 | 1.86 | .39 | .000 | 5 |
| APR | | | | | | | | | | | | |
| 08... | .7 | 240 | 36 | 1.5 | .2 | 14 | 305 | .41 | 1.81 | .62 | .040 | 3 |
| MAY | | | | | | | | | | | | |
| 02... | .7 | 180 | 19 | 1.7 | .2 | 16 | 232 | .32 | 28.5 | 1.2 | .060 | 5 |
| JUL | | | | | | | | | | | | |
| 08... | .8 | -- | 32 | 1.4 | .3 | 17 | -- | -- | -- | .13 | .010 | 6 |
| AUG | | | | | | | | | | | | |
| 06... | 1.0 | 250 | 34 | 2.1 | .3 | 16 | 306 | .42 | 1.32 | .05 | .330 | 5 |

| DATE | BARIUM. DISSOLVED (UG/L AS BA) | BORON. DISSOLVED (UG/L AS B) | CADMIUM DISSOLVED (UG/L AS CD) | COPPER. DISSOLVED (UG/L AS CU) | IRON. DISSOLVED (UG/L AS FE) | LEAD. DISSOLVED (UG/L AS PB) | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE. DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | SELENIUM. DISSOLVED (UG/L AS SE) | STRONTIUM. DISSOLVED (UG/L AS SR) | ZINC. DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | 80 | 60 | <1 | 2 | 10 | 0 | 20 | 5 | .0 | 0 | 900 | <3 |
| 30... | 80 | 50 | <1 | 0 | 10 | 0 | 20 | 6 | .0 | 0 | 820 | <3 |
| DEC | | | | | | | | | | | | |
| 06... | 90 | 40 | <1 | 4 | 20 | 0 | 5 | 4 | .0 | 0 | 930 | <3 |
| JAN | | | | | | | | | | | | |
| 17... | 80 | 70 | <1 | 0 | <10 | 0 | <4 | 4 | .0 | 1 | 940 | <3 |
| APR | | | | | | | | | | | | |
| 08... | 70 | 60 | <1 | 2 | <10 | 0 | 9 | 5 | .0 | 1 | 830 | <3 |
| MAY | | | | | | | | | | | | |
| 02... | 60 | 40 | <1 | 5 | <10 | 0 | 20 | 4 | .0 | 1 | 600 | <3 |
| JUL | | | | | | | | | | | | |
| 08... | 80 | 40 | <1 | 6 | <10 | 0 | 5 | 3 | .0 | 1 | 840 | 3 |
| AUG | | | | | | | | | | | | |
| 06... | 90 | 60 | <1 | 3 | <10 | 4 | 6 | 5 | .0 | 1 | 860 | <3 |

## 09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO

LOCATION.--Lat 39°37'15", long 108°01'46" in NW¼NW¼ sec.14, T.5 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on right bank 0.5 mi (0.8 km) upstream from mouth of Corral Gulch, 1.1 mi (1.8 km) downstream from mouth of Northwater Creek, and 9 mi (14 km) southwest of Rio Blanco.

DRAINAGE AREA.--22.1 mi² (57.2 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,400 ft (2,256 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Numerous beaver dams are located upstream. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 186 ft³/s (5.27 m³/s) May 17, 1979, gage height, 3.39 ft (1.033 m); minimum daily, 0.18 ft³/s (0.005 m³/s) Oct. 1, 2, 5, Dec. 12, 1977, Jan. 22, 23, Feb. 15, 18, 19, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 128 ft³/s (3.62 m³/s) at 1600 May 22, gage height, 2.80 ft (0.853 m); minimum daily, 0.57 ft³/s (0.016 m³/s) Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.2 | .88 | .76 | .90 | .92 | .70 | .86 | 68 | 31 | 5.2 | 2.0 | 1.1 |
| 2 | 1.2 | .88 | .76 | .88 | .90 | .72 | .88 | 76 | 28 | 5.4 | 2.0 | 1.1 |
| 3 | 1.2 | .84 | .76 | .86 | .90 | .74 | .90 | 73 | 25 | 5.4 | 1.8 | 1.1 |
| 4 | 1.1 | .84 | .76 | .84 | .88 | .76 | 1.1 | 78 | 24 | 4.7 | 1.8 | 1.1 |
| 5 | 1.1 | .84 | .76 | .82 | .86 | .78 | 1.3 | 83 | 22 | 4.2 | 1.9 | 1.1 |
| 6 | 1.1 | .88 | .76 | .80 | .84 | .80 | 1.5 | 87 | 20 | 4.0 | 2.0 | 1.1 |
| 7 | 1.0 | .88 | .92 | .78 | .82 | .80 | 1.9 | 101 | 20 | 3.8 | 2.0 | 1.2 |
| 8 | 1.0 | .88 | .92 | .76 | .80 | .72 | 2.2 | 94 | 18 | 3.7 | 1.7 | 1.2 |
| 9 | 1.0 | .96 | .92 | .74 | .78 | .72 | 2.3 | 100 | 17 | 3.3 | 1.4 | 1.1 |
| 10 | 1.0 | .88 | .92 | .72 | .76 | .72 | 2.9 | 98 | 15 | 3.1 | 1.4 | 1.2 |
| 11 | 1.0 | .88 | .96 | .70 | .75 | .76 | 3.1 | 100 | 14 | 3.1 | 1.4 | 1.3 |
| 12 | 1.0 | .88 | .92 | .68 | .76 | .84 | 3.1 | 105 | 14 | 2.8 | 1.4 | 1.2 |
| 13 | 1.1 | .88 | .88 | .66 | .76 | .84 | 3.3 | 107 | 12 | 2.8 | 1.4 | 1.1 |
| 14 | 1.0 | .84 | .84 | .64 | .76 | .82 | 3.7 | 111 | 12 | 2.9 | 1.4 | 1.1 |
| 15 | 1.0 | .84 | .80 | .62 | .74 | .82 | 5.0 | 108 | 11 | 2.6 | 1.4 | 1.1 |
| 16 | 1.0 | .84 | .84 | .60 | .74 | .84 | 5.7 | 105 | 10 | 2.3 | 1.5 | 1.1 |
| 17 | 1.1 | .80 | .84 | .60 | .74 | .80 | 6.4 | 105 | 9.7 | 2.3 | 1.5 | 1.0 |
| 18 | 1.1 | .88 | .84 | .57 | .76 | .76 | 8.3 | 105 | 9.3 | 2.2 | 1.4 | 1.0 |
| 19 | 1.1 | .92 | .88 | .68 | .76 | .72 | 12 | 89 | 8.4 | 2.2 | 1.4 | 1.0 |
| 20 | 1.3 | .88 | .80 | .76 | .76 | .72 | 16 | 95 | 8.0 | 2.2 | 1.3 | 1.1 |
| 21 | 1.3 | .88 | .76 | .72 | .76 | .74 | 21 | 102 | 7.4 | 2.2 | 1.3 | 1.1 |
| 22 | 1.3 | .80 | .76 | .76 | .74 | .74 | 29 | 118 | 7.4 | 2.1 | 1.2 | 1.1 |
| 23 | 1.2 | .84 | .80 | .96 | .74 | .76 | 36 | 111 | 6.7 | 2.2 | 1.1 | 1.1 |
| 24 | 1.2 | .80 | .92 | 1.2 | .74 | .76 | 42 | 94 | 6.7 | 2.2 | 1.3 | 1.1 |
| 25 | 1.2 | .88 | .92 | 1.1 | .74 | .78 | 42 | 70 | 6.7 | 2.8 | 1.2 | 1.1 |
| 26 | 1.1 | .84 | .96 | 1.0 | .72 | .78 | 45 | 56 | 6.2 | 2.4 | 1.2 | 1.1 |
| 27 | 1.1 | .76 | 1.0 | 1.0 | .72 | .80 | 47 | 49 | 6.2 | 1.9 | 1.1 | 1.1 |
| 28 | 1.1 | .76 | .96 | .98 | .72 | .60 | 50 | 44 | 5.7 | 1.9 | 1.1 | 1.1 |
| 29 | 1.2 | .76 | .92 | .96 | .70 | .82 | 56 | 41 | 5.7 | 1.8 | 1.1 | 1.0 |
| 30 | 1.2 | .76 | .90 | .94 | --- | .82 | 63 | 37 | 5.2 | 2.1 | 1.1 | 1.0 |
| 31 | .88 | --- | .90 | .94 | --- | .84 | --- | 34 | --- | 2.2 | 1.1 | --- |
| TOTAL | 34.38 | 25.48 | 26.64 | 25.17 | 22.57 | 24.02 | 513.44 | 2644 | 392.3 | 92.0 | 44.9 | 33.1 |
| MEAN | 1.11 | .85 | .86 | .81 | .78 | .77 | 17.1 | 85.3 | 13.1 | 2.97 | 1.45 | 1.10 |
| MAX | 1.3 | .96 | 1.0 | 1.2 | .92 | .84 | 63 | 118 | 31 | 5.4 | 2.0 | 1.3 |
| MIN | .88 | .76 | .76 | .57 | .70 | .70 | .86 | 34 | 5.2 | 1.8 | 1.1 | 1.0 |
| AC-FT | 68 | 51 | 53 | 50 | 45 | 48 | 1020 | 5240 | 778 | 182 | 89 | 66 |

CAL YR 1979 TOTAL 4255.73 MEAN 11.7 MAX 150 MIN .26 AC-FT 8440
WTR YR 1980 TOTAL 3878.00 MEAN 10.6 MAX 118 MIN .57 AC-FT 7690

NOTE.--NO GAGE-HEIGHT RECORD JAN. 27 TO MAR. 6.

## 09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
WATER TEMPERATURE: October 1976 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1976. Pumping sediment sampler since October 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,280 micromhos Oct. 11-30; minimum, 262 micromhos Mar. 23, 1977.
WATER TEMPERATURES: Maximum, 24.5°C July 13, Aug. 9, 14, 1977; minimum, freezing point most days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily, 5,360 mg/L May 16, 1979; minimum daily, 2 mg/L Nov. 20.
SEDIMENT LOADS: Maximum daily, 1,980 tons (1,800 t) May 16, 1979; minimum daily, less than 0.005 ton ( 0.005 t) several days during 1979 water year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,280 micromhos Oct. 11-30; minimum, 363 micromhos Apr. 23.
WATER TEMPERATURES: Maximum, 22.5°C Aug. 13; minimum, freezing point on many days during December to April.
SEDIMENT CONCENTRATIONS: Maximum daily, 441 mg/L May 22; minimum daily, 5 mg/L June 22.
SEDIMENT LOADS: Maximum daily, 200 tons (181 t) May 14; minimum daily, less than 0.005 ton ( 0.005 t) several days during year.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | 1130 | 1.2 | 550 | 8.1 | 7.5 | 8.4 | 220 | 0 | 53 | 20 | 37 | 1.1 |
| 30... | 1315 | 1.0 | 540 | 8.5 | 5.0 | 10.6 | 210 | 0 | 51 | 20 | 34 | 1.0 |
| DEC | | | | | | | | | | | | |
| 06... | 1050 | .74 | 580 | 8.1 | .0 | 11.2 | 220 | 0 | 55 | 21 | 38 | 1.1 |
| JAN | | | | | | | | | | | | |
| 17... | 1100 | .81 | 530 | 8.1 | 1.5 | 10.9 | 210 | 0 | 51 | 20 | 35 | 1.1 |
| APR | | | | | | | | | | | | |
| 08... | 1145 | 2.2 | 523 | 7.9 | 2.5 | -- | 210 | 0 | 50 | 20 | 34 | 1.0 |
| MAY | | | | | | | | | | | | |
| 02... | 0810 | 70 | 428 | 7.9 | 4.0 | 9.0 | 170 | 0 | 43 | 15 | 26 | .9 |
| JUL | | | | | | | | | | | | |
| 08... | 1130 | 4.4 | 500 | 8.3 | 16.5 | 8.4 | 200 | 0 | 49 | 19 | 32 | 1.0 |
| AUG | | | | | | | | | | | | |
| 06... | 1030 | 2.2 | 523 | 8.0 | 14.0 | -- | 200 | 0 | 50 | 19 | 34 | 1.0 |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) | ARSENIC DIS-SOLVED (UG/L AS AS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | .9 | 260 | 48 | 2.0 | .3 | 15 | 334 | .45 | 1.08 | .14 | .030 | 4 |
| 30... | .8 | 250 | 45 | 2.1 | .2 | 14 | 318 | .43 | .86 | .03 | .040 | 5 |
| DEC | | | | | | | | | | | | |
| 06... | 1.2 | 240 | 63 | 2.0 | .2 | 14 | 340 | .46 | .68 | .15 | .030 | 3 |
| JAN | | | | | | | | | | | | |
| 17... | 1.0 | 250 | 25 | 4.4 | .3 | 13 | 303 | .41 | .66 | .39 | .040 | 5 |
| APR | | | | | | | | | | | | |
| 08... | .7 | 230 | 43 | 1.7 | .2 | 13 | 304 | .41 | 1.81 | .55 | .050 | 3 |
| MAY | | | | | | | | | | | | |
| 02... | .7 | 190 | 22 | 2.0 | .2 | 17 | 246 | .33 | 46.5 | 1.2 | .020 | 6 |
| JUL | | | | | | | | | | | | |
| 08... | .9 | 240 | 35 | 1.8 | .3 | 16 | 300 | .41 | 3.56 | .08 | .000 | 6 |
| AUG | | | | | | | | | | | | |
| 06... | .8 | 250 | 39 | 2.0 | .3 | 16 | 312 | .42 | 1.85 | .02 | .330 | 5 |

## 09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

### WATER-QUALITY RECORDS

| DATE | BARIUM, DIS-SOLVED (UG/L AS BA) | BORON, DIS-SOLVED (UG/L AS B) | CADMIUM DIS-SOLVED (UG/L AS CD) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | LITHIUM DIS-SOLVED (UG/L AS LI) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | STRON-TIUM, DIS-SOLVED (UG/L AS SR) | ZINC, DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | 90 | 60 | <1 | 2 | <10 | 0 | 20 | 4 | .0 | 0 | 850 | <3 |
| 30... | 80 | 50 | <1 | 0 | <10 | 0 | 10 | 4 | .0 | 0 | 770 | <3 |
| DEC | | | | | | | | | | | | |
| 06... | 90 | 40 | 1 | 4 | 20 | 1 | 7 | 6 | .0 | 0 | 840 | <3 |
| JAN | | | | | | | | | | | | |
| 17... | 80 | 70 | <1 | 0 | <10 | 0 | <4 | 10 | .0 | 1 | 790 | <3 |
| APR | | | | | | | | | | | | |
| 08... | 70 | 60 | <1 | 0 | <10 | 0 | 9 | 3 | .0 | 1 | 740 | <3 |
| MAY | | | | | | | | | | | | |
| 02... | 60 | 40 | <1 | 4 | <10 | 0 | 30 | 5 | .0 | 1 | 570 | <3 |
| JUL | | | | | | | | | | | | |
| 09... | 80 | 60 | <1 | 6 | <10 | 0 | <4 | <1 | .0 | 1 | 780 | <3 |
| AUG | | | | | | | | | | | | |
| 06... | 90 | 60 | <1 | 4 | <10 | 5 | 6 | 2 | .0 | 1 | 820 | <3 |

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 550 | 543 | 578 | 540 | 466 | 467 | 504 | | --- | 495 | --- | 500 |
| 2 | 550 | 544 | 577 | 538 | 465 | 466 | 500 | | --- | 494 | --- | 499 |
| 3 | 550 | 546 | 576 | 536 | 462 | 466 | 495 | | --- | 497 | --- | 498 |
| 4 | 547 | 545 | 579 | 537 | 463 | 464 | 502 | | --- | 497 | --- | 497 |
| 5 | 541 | 545 | 581 | 533 | 462 | 463 | 496 | | --- | 498 | --- | 496 |
| 6 | 543 | 548 | 582 | 531 | 463 | 480 | 494 | | --- | 498 | --- | 494 |
| 7 | 550 | 549 | 581 | 528 | 462 | 507 | 494 | | --- | --- | --- | 492 |
| 8 | 550 | 547 | 577 | 526 | 456 | 508 | 504 | | --- | --- | --- | 492 |
| 9 | 550 | 549 | 574 | 523 | 460 | 501 | 506 | | --- | --- | --- | 492 |
| 10 | 550 | 551 | 576 | 516 | 461 | 487 | 504 | | --- | --- | --- | 487 |
| 11 | --- | 552 | 561 | 522 | 466 | 507 | 509 | | --- | 501 | 505 | 489 |
| 12 | --- | 555 | 566 | 517 | 466 | 507 | 512 | | --- | 497 | 509 | 489 |
| 13 | --- | 557 | 576 | 510 | 465 | 493 | 513 | | --- | 479 | 507 | 489 |
| 14 | --- | 559 | 574 | 495 | 460 | 506 | 504 | | --- | 496 | 505 | 487 |
| 15 | --- | 561 | 572 | 503 | 455 | 505 | 487 | | --- | 496 | 496 | 487 |
| 16 | --- | 564 | 570 | 505 | 462 | 499 | 486 | | --- | 502 | 504 | 487 |
| 17 | --- | 563 | 568 | 502 | 464 | 490 | 471 | | --- | 506 | 504 | 487 |
| 18 | --- | 551 | 564 | 504 | 456 | 500 | 453 | | --- | 502 | 506 | 486 |
| 19 | --- | 556 | 566 | 503 | 458 | 505 | 428 | | --- | 502 | 506 | 485 |
| 20 | --- | 555 | 560 | 488 | 458 | 505 | 427 | | --- | 505 | 505 | 484 |
| 21 | --- | 560 | 558 | 506 | 464 | 503 | 416 | | --- | 506 | 506 | 484 |
| 22 | --- | 563 | 557 | --- | 465 | 500 | 414 | | --- | 509 | 506 | 483 |
| 23 | --- | 566 | 556 | --- | 468 | 504 | 392 | | --- | 509 | 502 | 483 |
| 24 | --- | 564 | 551 | --- | 450 | 504 | 394 | | --- | 507 | 497 | 482 |
| 25 | --- | 565 | 550 | --- | 465 | 499 | --- | | --- | 508 | 501 | 481 |
| 26 | --- | 566 | 549 | --- | 470 | 501 | --- | | --- | 509 | 502 | 481 |
| 27 | --- | 567 | 547 | 484 | 472 | 505 | --- | | 494 | 510 | 502 | 480 |
| 28 | --- | 579 | 544 | 469 | 471 | 505 | --- | | 492 | 509 | 503 | 479 |
| 29 | --- | 578 | 545 | 467 | 467 | 505 | --- | | 496 | 510 | 500 | 478 |
| 30 | --- | 572 | 544 | 467 | --- | 502 | --- | | 495 | --- | 500 | 478 |
| 31 | 541 | --- | 546 | 468 | --- | 502 | --- | | --- | --- | 500 | --- |

## 09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 12.5 | 7.0 | 5.0 | 1.0 | .0 | .0 | .5 | .0 | .5 | .5 | 2.5 | .0 |
| 2 | 12.5 | 7.0 | 4.5 | 1.5 | 1.0 | .0 | 1.5 | .0 | 1.5 | .0 | 2.5 | .0 |
| 3 | 12.5 | 7.0 | 5.0 | 2.0 | 1.5 | .0 | 1.0 | .0 | 1.5 | .5 | 2.5 | .5 |
| 4 | 11.5 | 5.0 | 5.5 | 3.0 | 1.5 | .0 | 1.5 | .0 | 2.0 | .0 | 2.0 | .0 |
| 5 | 12.0 | 5.5 | 5.0 | 2.5 | 1.0 | .0 | .5 | .0 | 1.0 | .0 | 2.5 | .0 |
| 6 | 12.5 | 5.5 | 5.0 | 2.0 | 1.0 | .0 | 1.0 | .0 | 2.0 | .5 | 1.5 | .5 |
| 7 | 12.5 | 6.0 | 5.5 | 4.0 | 2.0 | .0 | 1.0 | .0 | 1.5 | .0 | 2.5 | .0 |
| 8 | 12.0 | 5.5 | 5.5 | 3.0 | 2.5 | .0 | 1.0 | .0 | .5 | .0 | 3.0 | .0 |
| 9 | 11.5 | 5.5 | 5.0 | 2.5 | .5 | .0 | 2.0 | .5 | .5 | .0 | 2.5 | .0 |
| 10 | 11.0 | 5.0 | 3.5 | 1.0 | .5 | .0 | .5 | .0 | .5 | .0 | 2.5 | .0 |
| 11 | 10.5 | 5.0 | 4.0 | 1.0 | .0 | .0 | .5 | .0 | .5 | .0 | 2.5 | .0 |
| 12 | --- | --- | 3.0 | .5 | .0 | .0 | 1.0 | .5 | .5 | .0 | 2.0 | .0 |
| 13 | --- | --- | 3.0 | .5 | .0 | .0 | 2.5 | 1.0 | 1.5 | .0 | 2.0 | .0 |
| 14 | --- | --- | 3.0 | .5 | .0 | .0 | 1.5 | .5 | 1.5 | .0 | 2.5 | .0 |
| 15 | --- | --- | 3.0 | .5 | .0 | .0 | 1.5 | .5 | 2.0 | .5 | 3.0 | .0 |
| 16 | --- | --- | 2.5 | .5 | .5 | .0 | 2.5 | .5 | 3.0 | .5 | 3.0 | .0 |
| 17 | --- | --- | 4.0 | .5 | .5 | .0 | 2.5 | .5 | 2.0 | .5 | 1.5 | .0 |
| 18 | --- | --- | 4.5 | .5 | .0 | .0 | 2.5 | .5 | 2.5 | .5 | 2.5 | .0 |
| 19 | --- | --- | 2.5 | 1.0 | .0 | .0 | 1.5 | .0 | 1.5 | .5 | 3.5 | .0 |
| 20 | --- | --- | 3.0 | .5 | 1.0 | .0 | .5 | .0 | 2.0 | .5 | 2.5 | .0 |
| 21 | --- | --- | 1.5 | .0 | 1.0 | .0 | .5 | .0 | 2.5 | .5 | 3.5 | .0 |
| 22 | --- | --- | .5 | .0 | 1.0 | .0 | .5 | .0 | 2.5 | .0 | 3.0 | .5 |
| 23 | --- | --- | 1.5 | .0 | 1.5 | .0 | .5 | .5 | 2.0 | .0 | 3.0 | .5 |
| 24 | --- | --- | 2.5 | .5 | 1.0 | .0 | 1.0 | .5 | 1.0 | .0 | 4.5 | .0 |
| 25 | --- | --- | 1.5 | .5 | 1.0 | .0 | 1.0 | .5 | .5 | .0 | 2.5 | .5 |
| 26 | --- | --- | 1.5 | .5 | 1.5 | .0 | 1.0 | .0 | 1.5 | .0 | 3.5 | .0 |
| 27 | --- | --- | .5 | .0 | 1.5 | .0 | 1.0 | .5 | 2.0 | .0 | 3.0 | .0 |
| 28 | --- | --- | 2.0 | 1.0 | 1.0 | .0 | .5 | .0 | 2.0 | .0 | 3.0 | .5 |
| 29 | --- | --- | 1.5 | 1.0 | 1.5 | .0 | .5 | .0 | 2.0 | .5 | 4.0 | .5 |
| 30 | --- | --- | 1.5 | 1.0 | .0 | .0 | .5 | .0 | --- | --- | 3.0 | .0 |
| 31 | 4.5 | 1.0 | --- | --- | .0 | .0 | .5 | .0 | --- | --- | 3.0 | .0 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 4.0 | .0 | | | --- | --- | 19.5 | 12.5 | --- | --- | 17.5 | 7.5 |
| 2 | 2.0 | .0 | | | --- | --- | 21.0 | 10.0 | --- | --- | 18.0 | 8.0 |
| 3 | 4.0 | .0 | | | --- | --- | 21.5 | 9.0 | --- | --- | 18.0 | 8.0 |
| 4 | 5.0 | .0 | | | --- | --- | 22.0 | 9.5 | --- | --- | 18.5 | 8.5 |
| 5 | 5.0 | .5 | | | --- | --- | 22.0 | 9.5 | --- | --- | 18.5 | 9.0 |
| 6 | 4.0 | 1.0 | | | --- | --- | 22.0 | 10.0 | --- | --- | 18.0 | 10.5 |
| 7 | 4.0 | 1.0 | | | --- | --- | 21.5 | 11.0 | --- | --- | 17.0 | 11.0 |
| 8 | 4.0 | .5 | | | --- | --- | 15.5 | 9.5 | --- | --- | 15.5 | 11.5 |
| 9 | 5.0 | .0 | | | --- | --- | 17.0 | 9.5 | --- | --- | 14.0 | 11.0 |
| 10 | 5.5 | 1.5 | | | --- | --- | 18.0 | 9.5 | --- | --- | 14.5 | 11.0 |
| 11 | 5.0 | .5 | | | --- | --- | 20.5 | 10.0 | 21.5 | 12.5 | 15.5 | 8.5 |
| 12 | 5.5 | .0 | | | --- | --- | 20.0 | 9.5 | 22.0 | 9.5 | 15.0 | 9.5 |
| 13 | 6.0 | .0 | | | --- | --- | 22.0 | 9.0 | 22.5 | 11.5 | 16.5 | 8.5 |
| 14 | 7.0 | .0 | | | --- | --- | 22.0 | 10.0 | 20.5 | 12.5 | 15.5 | 8.0 |
| 15 | 7.0 | 1.0 | | | --- | --- | 22.5 | 9.5 | 20.0 | 13.0 | 15.5 | 7.5 |
| 16 | 7.5 | .5 | | | --- | --- | 22.0 | 10.0 | 17.5 | 10.5 | 16.0 | 9.5 |
| 17 | 8.0 | .5 | | | --- | --- | 22.0 | 12.0 | 20.5 | 9.5 | 15.5 | 7.0 |
| 18 | 8.5 | 1.0 | | | --- | --- | 20.0 | 10.5 | 19.5 | 9.5 | 16.0 | 7.0 |
| 19 | 8.5 | 1.5 | | | --- | --- | 22.5 | 12.5 | 18.5 | 10.0 | 16.5 | 9.0 |
| 20 | 9.0 | 1.5 | | | --- | --- | 21.0 | 11.5 | 18.5 | 8.0 | 15.0 | 8.5 |
| 21 | 8.5 | 2.0 | | | --- | --- | 21.5 | 10.0 | 19.5 | 8.0 | 14.5 | 7.0 |
| 22 | 7.0 | 2.5 | | | --- | --- | 21.5 | 9.0 | 19.5 | 8.5 | 13.5 | 6.5 |
| 23 | --- | --- | | | --- | --- | 21.5 | 9.5 | 18.0 | 11.0 | 13.0 | 5.0 |
| 24 | --- | --- | | | --- | --- | 22.0 | 10.0 | 16.0 | 12.0 | 13.0 | 5.5 |
| 25 | --- | --- | | | --- | --- | 21.5 | 10.0 | 17.0 | 10.5 | 13.0 | 5.5 |
| 26 | --- | --- | | | --- | --- | 22.5 | 10.0 | 18.0 | 9.5 | 13.5 | 5.5 |
| 27 | --- | --- | | | 22.0 | 9.5 | 22.5 | 11.5 | 19.5 | 9.0 | 14.0 | 6.0 |
| 28 | --- | --- | | | 20.5 | 10.5 | 22.5 | 10.5 | 19.0 | 9.0 | 14.0 | 6.5 |
| 29 | --- | --- | | | 22.0 | 11.5 | 21.5 | 9.0 | 15.0 | 10.0 | 13.0 | 6.5 |
| 30 | --- | --- | | | 22.0 | 12.0 | --- | --- | 16.5 | 8.0 | 13.0 | 6.0 |
| 31 | --- | --- | | | --- | --- | --- | --- | 15.0 | 8.0 | --- | --- |

## 09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

### SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
|  |  | OCTOBER |  |  | NOVEMBER |  |  | DECEMBER |  |
| 1 | 1.2 | --- | .10 | .88 |  | .00 | .76 | --- | .00 |
| 2 | 1.2 | --- | .10 | .88 |  | .00 | .76 | --- | .00 |
| 3 | 1.2 | 36 | .11 | .84 |  | .00 | .76 | --- | .01 |
| 4 | 1.1 | --- | .10 | .84 |  | .00 | .76 | --- | .02 |
| 5 | 1.1 | --- | .10 | .84 |  | .00 | .76 | --- | .03 |
| 6 | 1.1 | --- | .10 | .88 |  | .00 | .76 | 24 | .05 |
| 7 | 1.0 | --- | .10 | .88 |  | .00 | .92 | --- | .08 |
| 8 | 1.0 | --- | .10 | .88 |  | .01 | .92 | --- | .08 |
| 9 | 1.0 | --- | .10 | .96 |  | .01 | .92 | --- | .08 |
| 10 | 1.0 | --- | .10 | .88 |  | .00 | .92 | --- | .08 |
| 11 | 1.0 | --- | .10 | .88 |  | .00 | .96 | --- | .10 |
| 12 | 1.0 | --- | .10 | .88 |  | .00 | .92 | --- | .08 |
| 13 | 1.1 | --- | .10 | .88 |  | .00 | .88 | --- | .05 |
| 14 | 1.0 | --- | .10 | .84 |  | .00 | .84 | --- | .02 |
| 15 | 1.0 | --- | .10 | .84 |  | .00 | .80 | --- | .00 |
| 16 | 1.0 | --- | .10 | .84 |  | .00 | .84 | --- | .00 |
| 17 | 1.1 | --- | .10 | .80 |  | .00 | .84 | --- | .00 |
| 18 | 1.1 | --- | .10 | .88 |  | .00 | .84 | --- | .00 |
| 19 | 1.1 | --- | .10 | .92 |  | .01 | .88 | --- | .01 |
| 20 | 1.3 | --- | .10 | .88 |  | .01 | .80 | --- | .00 |
| 21 | 1.3 | --- | .10 | .88 |  | .00 | .76 | --- | .00 |
| 22 | 1.3 | --- | .10 | .80 |  | .00 | .76 | --- | .00 |
| 23 | 1.2 | --- | .10 | .84 |  | .00 | .80 | --- | .00 |
| 24 | 1.2 | --- | .10 | .80 |  | .00 | .92 | --- | .05 |
| 25 | 1.2 | --- | .10 | .88 |  | .00 | .92 | --- | .05 |
| 26 | 1.1 | --- | .10 | .84 |  | .00 | .96 | --- | .08 |
| 27 | 1.1 | --- | .10 | .76 |  | .00 | 1.0 | --- | .10 |
| 28 | 1.1 | --- | .05 | .76 |  | .00 | .96 | --- | .08 |
| 29 | 1.2 | --- | .03 | .76 |  | .00 | .92 | --- | .05 |
| 30 | 1.2 | 8 | .02 | .76 |  | .00 | .90 | --- | .01 |
| 31 | .88 | --- | .00 | --- |  |  | .90 | --- | .01 |

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
|  |  | JANUARY |  |  | FEBRUARY |  |  | MARCH |  |
| 1 | .90 |  | .01 | .92 |  | .01 | .70 |  | .00 |
| 2 | .88 |  | .01 | .90 |  | .01 | .72 |  | .00 |
| 3 | .86 |  | .00 | .90 |  | .01 | .74 |  | .00 |
| 4 | .84 |  | .00 | .88 |  | .01 | .76 |  | .00 |
| 5 | .82 |  | .00 | .86 |  | .00 | .78 |  | .00 |
| 6 | .80 |  | .00 | .84 |  | .00 | .80 |  | .00 |
| 7 | .78 |  | .00 | .82 |  | .00 | .80 |  | .00 |
| 8 | .76 |  | .00 | .80 |  | .00 | .72 |  | .00 |
| 9 | .74 |  | .00 | .78 |  | .00 | .72 |  | .00 |
| 10 | .72 |  | .00 | .76 |  | .00 | .72 |  | .00 |
| 11 | .70 |  | .00 | .75 |  | .00 | .76 |  | .00 |
| 12 | .68 |  | .00 | .76 |  | .00 | .84 |  | .00 |
| 13 | .66 |  | .00 | .76 |  | .00 | .84 |  | .00 |
| 14 | .64 |  | .00 | .76 |  | .00 | .82 |  | .00 |
| 15 | .62 |  | .00 | .74 |  | .00 | .82 |  | .00 |
| 16 | .60 |  | .00 | .74 |  | .00 | .84 |  | .00 |
| 17 | .60 |  | .00 | .74 |  | .00 | .80 |  | .00 |
| 18 | .57 |  | .00 | .76 |  | .00 | .76 |  | .00 |
| 19 | .68 |  | .00 | .76 |  | .00 | .72 |  | .00 |
| 20 | .76 |  | .00 | .76 |  | .00 | .72 |  | .00 |
| 21 | .72 |  | .00 | .76 |  | .00 | .74 |  | .00 |
| 22 | .76 |  | .00 | .74 |  | .00 | .74 |  | .00 |
| 23 | .96 |  | .05 | .74 |  | .00 | .76 |  | .00 |
| 24 | 1.2 |  | .10 | .74 |  | .00 | .76 |  | .00 |
| 25 | 1.1 |  | .10 | .74 |  | .00 | .78 |  | .00 |
| 26 | 1.0 |  | .10 | .72 |  | .00 | .78 |  | .00 |
| 27 | 1.0 |  | .10 | .72 |  | .00 | .80 |  | .00 |
| 28 | .98 |  | .05 | .72 |  | .00 | .80 |  | .00 |
| 29 | .96 |  | .03 | .70 |  | .00 | .82 |  | .00 |
| 30 | .94 |  | .01 | --- |  |  | .82 |  | .00 |
| 31 | .94 |  | .01 | --- |  |  | .84 |  | .00 |

## 09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

### SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | APRIL | | | MAY | | | JUNE | |
| 1 | .86 | --- | .01 | 68 | --- | 100 | 31 | 24 | 2.0 |
| 2 | .88 | --- | .05 | 76 | --- | 98 | 28 | 21 | 1.6 |
| 3 | .90 | --- | .10 | 73 | --- | 100 | 25 | --- | 1.0 |
| 4 | 1.1 | --- | .20 | 78 | --- | 130 | 24 | --- | 1.0 |
| 5 | 1.3 | --- | .20 | 83 | --- | 40 | 22 | --- | 1.0 |
| 6 | 1.5 | --- | .30 | 87 | --- | 50 | 20 | --- | 1.0 |
| 7 | 1.9 | --- | .30 | 101 | --- | 110 | 20 | --- | 1.0 |
| 8 | 2.2 | 48 | .30 | 94 | --- | 60 | 18 | --- | .80 |
| 9 | 2.3 | --- | .60 | 100 | --- | 100 | 17 | --- | .70 |
| 10 | 2.9 | --- | .70 | 98 | --- | 90 | 15 | --- | .60 |
| 11 | 3.1 | --- | .70 | 100 | --- | 100 | 14 | --- | .50 |
| 12 | 3.1 | --- | .80 | 105 | --- | 130 | 14 | --- | .50 |
| 13 | 3.3 | --- | .20 | 107 | --- | 140 | 12 | --- | .40 |
| 14 | 3.7 | --- | .30 | 111 | --- | 200 | 12 | --- | .40 |
| 15 | 5.0 | --- | .40 | 108 | 231 | 67 | 11 | --- | .40 |
| 16 | 5.7 | --- | .60 | 105 | --- | 70 | 10 | --- | .30 |
| 17 | 6.4 | --- | 1.5 | 105 | --- | 70 | 9.7 | --- | .30 |
| 18 | 8.3 | --- | 3.0 | 105 | --- | 70 | 9.3 | 14 | .35 |
| 19 | 12 | --- | 5.0 | 89 | --- | 50 | 8.4 | 51 | 1.2 |
| 20 | 16 | --- | 10 | 95 | --- | 60 | 8.0 | 35 | .78 |
| 21 | 21 | --- | 20 | 102 | --- | 100 | 7.4 | 9 | .18 |
| 22 | 29 | --- | 30 | 118 | 441 | 140 | 7.4 | 5 | .10 |
| 23 | 36 | --- | 30 | 111 | 380 | 114 | 6.7 | 20 | .36 |
| 24 | 42 | --- | 30 | 94 | 190 | 48 | 6.7 | 9 | .16 |
| 25 | 42 | --- | 40 | 70 | 125 | 24 | 6.7 | 7 | .13 |
| 26 | 45 | --- | 40 | 56 | 66 | 10 | 6.2 | 12 | .20 |
| 27 | 47 | --- | 40 | 49 | 57 | 7.5 | 6.2 | 24 | .40 |
| 28 | 50 | --- | 50 | 44 | 40 | 4.8 | 5.7 | 25 | .38 |
| 29 | 56 | --- | 50 | 41 | 40 | 4.4 | 5.7 | 12 | .18 |
| 30 | 63 | --- | 70 | 37 | 30 | 3.0 | 5.2 | 30 | .42 |
| 31 | --- | --- | --- | 34 | 24 | 2.2 | --- | --- | --- |

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 5.2 | | .30 | 2.0 | --- | .40 | 1.1 | | .10 |
| 2 | 5.4 | | .20 | 2.0 | --- | .40 | 1.1 | | .10 |
| 3 | 5.4 | | .20 | 1.8 | --- | .40 | 1.1 | | .10 |
| 4 | 4.7 | | .20 | 1.8 | --- | .30 | 1.1 | | .10 |
| 5 | 4.2 | | .10 | 1.9 | --- | .20 | 1.1 | | .10 |
| 6 | 4.0 | | .10 | 2.0 | 20 | .10 | 1.1 | | .10 |
| 7 | 3.8 | | .10 | 2.0 | --- | .20 | 1.2 | | .10 |
| 8 | 3.7 | | .10 | 1.7 | --- | .30 | 1.2 | | .10 |
| 9 | 3.3 | | .10 | 1.4 | --- | .20 | 1.1 | | .10 |
| 10 | 3.1 | | .10 | 1.4 | --- | .10 | 1.2 | | .10 |
| 11 | 3.1 | | .10 | 1.4 | 11 | .04 | 1.3 | | .20 |
| 12 | 2.8 | | .60 | 1.4 | --- | .10 | 1.2 | | .10 |
| 13 | 2.8 | | .60 | 1.4 | --- | .10 | 1.1 | | .10 |
| 14 | 2.9 | | .60 | 1.4 | --- | .20 | 1.1 | | .10 |
| 15 | 2.6 | | .60 | 1.4 | --- | .20 | 1.1 | | .10 |
| 16 | 2.3 | | .50 | 1.5 | --- | .20 | 1.1 | | .10 |
| 17 | 2.3 | | .50 | 1.5 | --- | .20 | 1.0 | | .10 |
| 18 | 2.2 | | .40 | 1.4 | --- | .20 | 1.0 | | .10 |
| 19 | 2.2 | | .40 | 1.4 | --- | .20 | 1.0 | | .10 |
| 20 | 2.2 | | .40 | 1.3 | --- | .20 | 1.1 | | .10 |
| 21 | 2.2 | | .40 | 1.3 | --- | .20 | 1.1 | | .10 |
| 22 | 2.1 | | .40 | 1.2 | --- | .20 | 1.1 | | .10 |
| 23 | 2.2 | | .40 | 1.1 | --- | .20 | 1.1 | | .10 |
| 24 | 2.2 | | .60 | 1.3 | --- | .10 | 1.1 | | .10 |
| 25 | 2.8 | | .50 | 1.2 | --- | .10 | 1.1 | | .10 |
| 26 | 2.4 | | .30 | 1.2 | --- | .10 | 1.1 | | .10 |
| 27 | 1.9 | | .30 | 1.1 | --- | .10 | 1.1 | | .10 |
| 28 | 1.9 | | .30 | 1.1 | --- | .10 | 1.1 | | .10 |
| 29 | 1.8 | | .30 | 1.1 | --- | .10 | 1.0 | | .10 |
| 30 | 2.1 | | .40 | 1.1 | --- | .10 | 1.0 | | .10 |
| 31 | 2.2 | | .40 | 1.1 | --- | .10 | --- | | |
| TOTAL | 92.0 | | 10.50 | 44.9 | --- | 5.64 | 33.1 | | 3.10 |
| YEAR | 3878.00 | | 2760.32 | | | | | | |

## 09092960 EAST FORK PARACHUTE CREEK NEAR ANVIL POINTS, CO

LOCATION.--Lat 39°33'18", long 107°58'56", in SW¼NE¼ sec.3, T.6 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on right bank 700 ft (213 m) downstream from first Anvil Creek and 4.2 mi (6.8 km) northwest of Anvil Points.

DRAINAGE AREA.--14.5 mi² (37.6 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,860 ft (2,396 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversions or regulation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 226 ft³/s (6.40 m³/s) May 22, 1979, gage height, 3.60 ft (1.097 m); minimum daily, 0.07 ft³/s (0.002 m³/s) Aug. 9-11, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 161 ft³/s (3.99 m³/s) at 0200 May 23, gage height, 3.12 ft (0.951 m); minimum daily, 0.82 ft³/s (0.023 m³/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.0 | 1.0 | .98 | .91 | 1.1 | 1.4 | 2.1 | 50 | 48 | 6.3 | 2.0 | 1.1 |
| 2 | 1.0 | 1.0 | 1.0 | .91 | 1.1 | 1.4 | 2.1 | 48 | 44 | 6.9 | 2.0 | 1.0 |
| 3 | 1.0 | 1.0 | 1.0 | .91 | 1.1 | 1.4 | 2.3 | 51 | 41 | 7.3 | 2.1 | .98 |
| 4 | 1.0 | .98 | 1.0 | .91 | 1.1 | 1.3 | 2.5 | 52 | 37 | 5.8 | 1.9 | .91 |
| 5 | .98 | .98 | .98 | .91 | 1.1 | 1.3 | 3.5 | 60 | 35 | 5.5 | 1.9 | .85 |
| 6 | .98 | .98 | .96 | .91 | 1.0 | 1.4 | 4.4 | 69 | 33 | 5.2 | 1.8 | .82 |
| 7 | .98 | .94 | .94 | .91 | 1.1 | 1.4 | 4.1 | 80 | 30 | 5.3 | 1.6 | .93 |
| 8 | .98 | .94 | .92 | .91 | 1.1 | 1.4 | 3.5 | 85 | 28 | 5.7 | 1.5 | 1.1 |
| 9 | .98 | 1.0 | .86 | .91 | 1.1 | 1.3 | 4.1 | 96 | 26 | 4.8 | 1.5 | 1.2 |
| 10 | .96 | 1.0 | .92 | 1.2 | 1.1 | 1.3 | 5.9 | 98 | 25 | 4.5 | 1.4 | 1.6 |
| 11 | .98 | 1.0 | .96 | 1.3 | 1.1 | 1.3 | 6.2 | 107 | 23 | 4.6 | 1.4 | 1.5 |
| 12 | 1.0 | 1.0 | .96 | 1.0 | 1.1 | 1.3 | 5.3 | 114 | 22 | 4.4 | 1.4 | 1.2 |
| 13 | 1.1 | 1.0 | .94 | .91 | 1.1 | 1.3 | 5.9 | 98 | 21 | 4.4 | 1.7 | 1.1 |
| 14 | 1.1 | 1.0 | .94 | 1.2 | 1.1 | 1.3 | 8.1 | 84 | 19 | 4.7 | 1.7 | 1.0 |
| 15 | 1.1 | 1.0 | .94 | 1.4 | 1.2 | 1.5 | 12 | 79 | 18 | 3.9 | 2.9 | 1.1 |
| 16 | 1.1 | 1.0 | .98 | 1.4 | 1.1 | 1.5 | 14 | 83 | 17 | 3.6 | 2.6 | 1.0 |
| 17 | 1.1 | 1.1 | .98 | 1.5 | 1.1 | 1.5 | 18 | 95 | 16 | 3.3 | 1.9 | 1.0 |
| 18 | 1.1 | 1.2 | 1.0 | 1.3 | 1.2 | 1.5 | 23 | 91 | 15 | 3.2 | 1.7 | 1.0 |
| 19 | 1.1 | 1.1 | 1.0 | 1.3 | 1.5 | 1.5 | 28 | 85 | 14 | 3.2 | 1.5 | .94 |
| 20 | 1.1 | 1.1 | 1.0 | 1.3 | 1.3 | 2.1 | 30 | 100 | 13 | 3.1 | 1.6 | 1.0 |
| 21 | 1.1 | 1.1 | .96 | 1.3 | 1.3 | 2.7 | 34 | 121 | 12 | 3.0 | 1.5 | 1.0 |
| 22 | 1.1 | 1.1 | .94 | 1.3 | 1.3 | 3.1 | 36 | 130 | 11 | 2.9 | 1.4 | 1.1 |
| 23 | 1.1 | 1.1 | .94 | 1.3 | 1.2 | 2.7 | 39 | 136 | 10 | 3.0 | 1.6 | 1.1 |
| 24 | 1.1 | 1.0 | .92 | 1.4 | 1.2 | 2.3 | 40 | 120 | 9.2 | 3.1 | 2.3 | 1.1 |
| 25 | 1.1 | 1.0 | .91 | 1.4 | 1.2 | 2.7 | 39 | 100 | 8.5 | 3.3 | 1.9 | 1.1 |
| 26 | 1.1 | 1.0 | .91 | 1.2 | 1.2 | 2.3 | 40 | 82 | 8.0 | 3.4 | 1.8 | 1.1 |
| 27 | 1.1 | 1.0 | .91 | 1.1 | 1.2 | 2.3 | 40 | 73 | 7.6 | 2.9 | 1.6 | 1.1 |
| 28 | 1.1 | 1.0 | .91 | 1.1 | 1.4 | 2.3 | 43 | 67 | 7.3 | 2.6 | 1.4 | 1.1 |
| 29 | 1.1 | .98 | .91 | 1.1 | 1.5 | 2.3 | 47 | 62 | 6.5 | 2.5 | 1.1 | 1.1 |
| 30 | 1.1 | .96 | .91 | 1.1 | --- | 2.3 | 50 | 57 | 6.3 | 2.4 | 1.0 | 1.2 |
| 31 | 1.1 | --- | .91 | 1.1 | --- | 2.3 | --- | 52 | --- | 2.2 | 1.1 | --- |
| TOTAL | 32.74 | 30.56 | 29.39 | 35.40 | 34.2 | 55.7 | 593.0 | 2625 | 611.4 | 127.0 | 52.8 | 32.33 |
| MEAN | 1.06 | 1.02 | .95 | 1.14 | 1.18 | 1.80 | 19.8 | 84.7 | 20.4 | 4.10 | 1.70 | 1.08 |
| MAX | 1.1 | 1.2 | 1.0 | 1.5 | 1.5 | 3.1 | 50 | 136 | 48 | 7.3 | 2.9 | 1.6 |
| MIN | .96 | .94 | .86 | .91 | 1.0 | 1.3 | 2.1 | 48 | 6.3 | 2.2 | 1.0 | .82 |
| AC-FT | 65 | 61 | 58 | 70 | 68 | 110 | 1180 | 5210 | 1210 | 252 | 105 | 64 |

CAL YR 1979 TOTAL 5015.83 MEAN 13.7 MAX 180 MIN .39 AC-FT 9950
WTR YR 1980 TOTAL 4259.52 MEAN 11.6 MAX 136 MIN .82 AC-FT 8450

NOTE.--NO GAGE-HEIGHT RECORD OCT. 5 TO DEC. 25.

## 09092960 EAST FORK PARACHUTE CREEK NEAR ANVIL POINTS, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | OXYGEN, DISSOLVED (MG/L) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 04... | 1345 | 1.0 | 560 | 7.9 | 8.0 | 7.8 | 240 | 0 | 58 | 22 | 23 | .7 |
| MAY | | | | | | | | | | | | |
| 29... | 1200 | 61 | 415 | 8.2 | 8.5 | 8.6 | 200 | 0 | 50 | 17 | 16 | .5 |
| JUN | | | | | | | | | | | | |
| 30... | 1400 | 6.7 | 455 | 8.3 | 17.0 | -- | 220 | 0 | 55 | 20 | 18 | .5 |
| JUL | | | | | | | | | | | | |
| 29... | 1500 | 2.7 | 460 | 8.3 | 17.5 | 7.4 | 210 | 0 | 52 | 20 | 21 | .6 |
| AUG | | | | | | | | | | | | |
| 27... | 1600 | 1.4 | 470 | 8.3 | 16.0 | 7.5 | 220 | 0 | 53 | 21 | 21 | .6 |

| DATE | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P) | ARSENIC DISSOLVED (UG/L AS AS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 04... | .7 | 260 | 27 | 1.2 | .2 | 15 | 305 | .41 | .84 | .08 | .040 | 5 |
| MAY | | | | | | | | | | | | |
| 29... | .5 | 200 | 14 | 1.1 | .1 | 17 | 242 | .33 | 40.3 | 1.2 | .040 | 4 |
| JUN | | | | | | | | | | | | |
| 30... | .7 | 240 | 18 | 2.6 | .2 | 16 | 278 | .38 | 5.03 | .53 | .110 | 1 |
| JUL | | | | | | | | | | | | |
| 29... | .7 | 240 | 21 | 1.1 | .3 | 16 | 278 | .38 | 2.07 | .21 | .020 | 5 |
| AUG | | | | | | | | | | | | |
| 27... | .8 | 240 | 21 | 1.2 | .2 | 15 | 280 | .38 | 1.11 | .30 | .020 | 4 |

| DATE | BARIUM, DISSOLVED (UG/L AS BA) | BORON, DISSOLVED (UG/L AS B) | CADMIUM DISSOLVED (UG/L AS CD) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | SELENIUM, DISSOLVED (UG/L AS SE) | STRONTIUM, DISSOLVED (UG/L AS SR) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 04... | 90 | 50 | <1 | 1 | <10 | 0 | 6 | <1 | .0 | 1 | 700 | 4 |
| MAY | | | | | | | | | | | | |
| 29... | 60 | 30 | 1 | 2 | 30 | 2 | 7 | 4 | .0 | 1 | 500 | 5 |
| JUN | | | | | | | | | | | | |
| 30... | 80 | 60 | <1 | 1 | <10 | 0 | <4 | 2 | .0 | 1 | 610 | <3 |
| JUL | | | | | | | | | | | | |
| 29... | 80 | 30 | <1 | 1 | <10 | 0 | <4 | <1 | .0 | 1 | 620 | <3 |
| AUG | | | | | | | | | | | | |
| 27... | 80 | 60 | <1 | 1 | <10 | 0 | 5 | 1 | .0 | 1 | 630 | <3 |

## 09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO

LOCATION.--Lat 39°34'03", long 108°01'14", in SE¼NW¼ sec.35, T.5 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on right bank 0.3 mi (0.8 km) below East Fork Falls and 6.4 mi (10.3 km) northwest of Rulison.

DRAINAGE AREA.--20.4 mi² (52.8 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,880 ft (2,100 m), from topographic map. Since Apr. 25, 1980, supplementary water-stage recorder 1,000 ft (305 m) downstream at different datum.

REMARKS.--Records fair except those for period of no gage-height record, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 174 ft³/s (4.93 m³/s) May 11, 1980, gage height, 2.87 ft (0.875 m); maximum gage height, 3.49 ft (1.064 m), May 17, 1978, site and datum then in use; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 174 ft³/s (4.93 m³/s) at 2000 May 11, gage height, 2.87 ft (0.875 m), only peak above base of 100 ft³/s (2.8 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .96 | .50 | .00 | .00 | .00 | .00 | .26 | 76 | 36 | 5.7 | 1.7 | .87 |
| 2 | .96 | .60 | .00 | .00 | .00 | .00 | .28 | 72 | 32 | 6.3 | 1.7 | .76 |
| 3 | .96 | .70 | .00 | .00 | .00 | .00 | .30 | 75 | 30 | 6.0 | 1.7 | .71 |
| 4 | .96 | .76 | .00 | .00 | .00 | .00 | .32 | 81 | 27 | 4.6 | 1.5 | .64 |
| 5 | .94 | .86 | .00 | .00 | .00 | .00 | .35 | 90 | 24 | 4.2 | 1.4 | .64 |
| 6 | .94 | .90 | .00 | .00 | .00 | .00 | .40 | 101 | 22 | 3.9 | 1.4 | .58 |
| 7 | .94 | .92 | .00 | .00 | .00 | .00 | .50 | 113 | 21 | 4.1 | 1.2 | .58 |
| 8 | .94 | .92 | .00 | .00 | .00 | .00 | .60 | 118 | 19 | 4.3 | 1.1 | .69 |
| 9 | .94 | .92 | .00 | .00 | .00 | .00 | .70 | 134 | 18 | 3.7 | 1.0 | .85 |
| 10 | .94 | .90 | .00 | .00 | .00 | .00 | .90 | 146 | 16 | 3.5 | .98 | 1.1 |
| 11 | .94 | .85 | .00 | .00 | .00 | .00 | 1.2 | 160 | 16 | 3.2 | .89 | 1.4 |
| 12 | .94 | .80 | .00 | .00 | .00 | .00 | 2.0 | 132 | 16 | 3.0 | .88 | .95 |
| 13 | .95 | .70 | .00 | .00 | .00 | .00 | 3.0 | 109 | 15 | 3.3 | .96 | .83 |
| 14 | .98 | .60 | .00 | .00 | .00 | .00 | 4.0 | 98 | 14 | 3.6 | .89 | .73 |
| 15 | .99 | .56 | .00 | .00 | .00 | .00 | 5.0 | 104 | 13 | 2.9 | 1.7 | .73 |
| 16 | .99 | .52 | .00 | .00 | .00 | .00 | 6.0 | 107 | 13 | 2.6 | 1.6 | .68 |
| 17 | 1.0 | .50 | .00 | .00 | .00 | .00 | 7.0 | 123 | 12 | 2.6 | 1.2 | .67 |
| 18 | 1.1 | .45 | .00 | .00 | .00 | .00 | 8.0 | 116 | 11 | 2.6 | .86 | .67 |
| 19 | 1.2 | .39 | .00 | .00 | .00 | .00 | 11 | 110 | 11 | 2.4 | .77 | .61 |
| 20 | 1.0 | .37 | .00 | .00 | .00 | .02 | 14 | 126 | 10 | 2.5 | .83 | .72 |
| 21 | .90 | .30 | .00 | .00 | .00 | .04 | 19 | 146 | 9.5 | 2.5 | .84 | .77 |
| 22 | .88 | .20 | .00 | .00 | .00 | .06 | 25 | 161 | 8.9 | 2.3 | .80 | .86 |
| 23 | .86 | .08 | .00 | .00 | .00 | .08 | 40 | 153 | 8.3 | 2.6 | .81 | .91 |
| 24 | .84 | .06 | .00 | .00 | .00 | .10 | 48 | 146 | 8.0 | 2.6 | 1.5 | 1.1 |
| 25 | .84 | .00 | .00 | .00 | .00 | .12 | 45 | 109 | 7.4 | 2.6 | 1.2 | 1.1 |
| 26 | .80 | .00 | .00 | .00 | .00 | .14 | 40 | 75 | 7.1 | 2.8 | 1.2 | .85 |
| 27 | .80 | .00 | .00 | .00 | .00 | .16 | 42 | 67 | 6.8 | 2.2 | 1.1 | .84 |
| 28 | .80 | .00 | .00 | .00 | .00 | .18 | 50 | 67 | 6.6 | 1.9 | .86 | .79 |
| 29 | .74 | .00 | .00 | .00 | .00 | .20 | 63 | 63 | 6.3 | 1.8 | .83 | .79 |
| 30 | .70 | .00 | .00 | .00 | --- | .22 | 70 | 50 | 5.7 | 1.8 | .93 | .79 |
| 31 | .60 | --- | .00 | .00 | --- | .24 | --- | 42 | --- | 1.8 | .87 | --- |
| TOTAL | 28.33 | 14.36 | .00 | .00 | .00 | 1.56 | 507.81 | 3270 | 450.6 | 99.9 | 35.20 | 24.21 |
| MEAN | .91 | .48 | .000 | .000 | .000 | .050 | 16.9 | 105 | 15.0 | 3.22 | 1.14 | .81 |
| MAX | 1.2 | .92 | .00 | .00 | .00 | .24 | 70 | 161 | 36 | 6.3 | 1.7 | 1.4 |
| MIN | .60 | .00 | .00 | .00 | .00 | .00 | .26 | 42 | 5.7 | 1.8 | .77 | .58 |
| AC-FT | 56 | 28 | .00 | .00 | .00 | 3.1 | 1010 | 6490 | 894 | 198 | 70 | 48 |

CAL YR 1979 TOTAL 4584.61 MEAN 12.6 MAX 220 MIN .00 AC-FT 9090
WTR YR 1980 TOTAL 4431.97 MEAN 12.1 MAX 161 MIN .00 AC-FT 8790

NOTE.--NO GAGE-HEIGHT RECORD OCT. 1 TO APR. 25.

## 09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
WATER TEMPERATURE: October 1976 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1976. Pumping sediment sampler since December 1976.

REMARKS.--Daily maximum and minimum specific-conductance data available in District Office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 590 micromhos Oct. 9, 1979; minimum, 115 micromhos June 10, 1980.
WATER TEMPERATURES: Maximum, 19.5°C July 11, 17, 21, 22, 1980; minimum, 0.0°C several days during year.
SEDIMENT CONCENTRATIONS: Maximum daily, 1,680 mg/L May 17, 1978; minimum daily, 6 mg/L Sept. 1, 1978.
SEDIMENT LOADS: Maximum daily, 485 tons (440 t) May 17, 1978; minimum daily, 0.01 ton (0.01 t) on many days during 1978 water year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 590 micromhos Oct. 9; minimum, 115 micromhos June 10.
WATER TEMPERATURES: Maximum, 19.5°C July 11, 17, 21, 22; minimum recorded, 0.0°C Nov. 8.
SEDIMENT CONCENTRATIONS: Maximum daily, not determined; minimum daily, not determined.
SEDIMENT LOADS: Maximum daily, not determined; minimum daily, not determined.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | OXYGEN, DISSOLVED (MG/L) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 09... | 1300 | .93 | 590 | 8.0 | 4.0 | 10.1 | 220 | 0 | 52 | 22 | 24 | .7 |
| APR | | | | | | | | | | | | |
| 25... | 1200 | 46 | 390 | 8.4 | 4.0 | 11.1 | 180 | 1 | 44 | 17 | 22 | .7 |
| MAY | | | | | | | | | | | | |
| 16... | 1800 | 121 | 380 | 8.4 | 7.5 | 9.7 | 180 | 0 | 46 | 16 | 20 | .6 |
| JUN | | | | | | | | | | | | |
| 10... | 1500 | 27 | 440 | 8.3 | 14.0 | 8.1 | 200 | 0 | 52 | 18 | 18 | .5 |
| JUL | | | | | | | | | | | | |
| 01... | 1400 | 6.7 | 460 | 8.4 | 15.0 | 8.1 | 210 | 0 | 52 | 20 | 22 | .7 |
| 17... | 1400 | 3.2 | 460 | 8.7 | 14.5 | 7.9 | 220 | 0 | 53 | 21 | 23 | .7 |
| AUG | | | | | | | | | | | | |
| 13... | 1600 | 1.1 | 440 | 8.7 | 16.5 | 7.8 | 200 | 0 | 46 | 20 | 24 | .7 |

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

| DATE | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P) | ARSENIC DISSOLVED (UG/L AS AS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 09... | .6 | 250 | 33 | 1.4 | .2 | 14 | 299 | .41 | .75 | .07 | .030 | 5 |
| APR | | | | | | | | | | | | |
| 25... | 2.0 | 180 | 23 | 2.3 | .1 | 17 | 242 | .33 | 30.2 | 1.3 | -- | 3 |
| MAY | | | | | | | | | | | | |
| 16... | .5 | 190 | 14 | 1.4 | .1 | 18 | 241 | .33 | 78.7 | 2.3 | .310 | 4 |
| JUN | | | | | | | | | | | | |
| 10... | .6 | 230 | 19 | 1.9 | .1 | 17 | 269 | .37 | 19.8 | .82 | .010 | 4 |
| JUL | | | | | | | | | | | | |
| 01... | .6 | 220 | 24 | .7 | .3 | 15 | 269 | .37 | 4.87 | .23 | .000 | 4 |
| 17... | .9 | 240 | 23 | 1.0 | .3 | 16 | 284 | .39 | 2.46 | .20 | .010 | 4 |
| AUG | | | | | | | | | | | | |
| 13... | .7 | 220 | 25 | 1.3 | .2 | 16 | 266 | .36 | .81 | .01 | .010 | 5 |

| DATE | BARIUM, DISSOLVED (UG/L AS BA) | BORON, DISSOLVED (UG/L AS B) | CADMIUM DISSOLVED (UG/L AS CD) | COPPER, DISSOLVED (UG/L AS CU) | IRON, DISSOLVED (UG/L AS FE) | LEAD, DISSOLVED (UG/L AS PB) | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY DISSOLVED (UG/L AS HG) | SELENIUM, DISSOLVED (UG/L AS SE) | STRONTIUM, DISSOLVED (UG/L AS SR) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 09... | 80 | 60 | <1 | 0 | <10 | 1 | 7 | <1 | .0 | 0 | 680 | <3 |
| APR | | | | | | | | | | | | |
| 25... | 60 | 30 | 1 | 3 | 10 | 3 | 4 | 2 | .0 | 1 | 580 | 10 |
| MAY | | | | | | | | | | | | |
| 16... | 80 | 30 | <1 | 2 | 20 | 0 | 7 | <1 | .0 | 1 | 550 | <3 |
| JUN | | | | | | | | | | | | |
| 10... | 70 | 40 | <1 | 4 | <10 | 6 | 6 | 1 | .0 | 1 | 570 | <3 |
| JUL | | | | | | | | | | | | |
| 01... | 80 | 60 | <1 | 1 | <10 | 0 | <4 | <1 | .0 | 1 | 670 | <3 |
| 17... | 80 | 50 | <1 | 2 | <10 | 1 | <4 | <1 | .0 | 1 | 680 | <3 |
| AUG | | | | | | | | | | | | |
| 13... | 80 | 140 | 2 | 1 | <10 | 3 | 9 | <1 | .0 | 1 | 660 | <3 |

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT DISCHARGE, SUSPENDED (T/DAY) |
|---|---|---|---|---|
| OCT | | | | |
| 09... | 1230 | .93 | 14 | .04 |
| JUN | | | | |
| 10... | 1400 | 27 | 22 | 1.6 |
| JUL | | | | |
| 02... | 1600 | 6.7 | 11 | .20 |

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT DISCHARGE, SUSPENDED (T/DAY) |
|---|---|---|---|---|
| JUL | | | | |
| 17... | 1200 | 3.2 | 7 | .06 |
| 31... | 1200 | 1.5 | 3 | .01 |
| AUG | | | | |
| 13... | 1600 | 1.1 | 1 | .00 |

## 09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 485 | 470 | | | | | --- | 373 | 399 | 376 | 437 | 455 |
| 2 | 485 | 470 | | | | | --- | 377 | 396 | 422 | 440 | 456 |
| 3 | 485 | 470 | | | | | --- | 386 | 393 | 423 | 442 | 458 |
| 4 | 487 | 470 | | | | | --- | 391 | 410 | 434 | 447 | 458 |
| 5 | 488 | 465 | | | | | --- | 392 | 405 | 436 | 448 | 458 |
| 6 | 488 | 465 | | | | | --- | 394 | 405 | 437 | 449 | 454 |
| 7 | 488 | 465 | | | | | --- | 386 | 401 | 435 | 452 | 454 |
| 8 | 488 | 465 | | | | | --- | 386 | 267 | 435 | 454 | 456 |
| 9 | 488 | 476 | | | | | --- | 383 | 310 | 439 | 456 | 459 |
| 10 | 487 | 488 | | | | | --- | 400 | 353 | 441 | 458 | 456 |
| 11 | 486 | 487 | | | | | --- | 395 | 432 | 443 | 459 | 460 |
| 12 | 486 | 493 | | | | | --- | 381 | 438 | 444 | 462 | 459 |
| 13 | 485 | 497 | | | | | --- | 366 | 438 | 445 | 463 | 463 |
| 14 | 484 | 494 | | | | | --- | 381 | 440 | 444 | 460 | 462 |
| 15 | 483 | 500 | | | | | --- | 388 | 442 | 446 | 456 | 463 |
| 16 | 483 | 502 | | | | | --- | 400 | 442 | 446 | 460 | 467 |
| 17 | 482 | 494 | | | | | --- | 434 | 370 | 432 | 461 | 469 |
| 18 | 491 | 486 | | | | | --- | 420 | 332 | 388 | 462 | 469 |
| 19 | 480 | 490 | | | | | --- | 406 | 295 | 385 | 463 | 470 |
| 20 | 480 | 488 | | | | | --- | 390 | 300 | 396 | 461 | 471 |
| 21 | 480 | 494 | | | | | --- | 369 | 308 | 388 | 460 | 473 |
| 22 | 480 | 480 | | | | | --- | 347 | 315 | 388 | 458 | 474 |
| 23 | 480 | 457 | | | | | --- | 339 | 325 | 383 | 454 | 477 |
| 24 | 475 | 453 | | | | | --- | 372 | 336 | 380 | 448 | 478 |
| 25 | 475 | 453 | | | | | --- | 380 | 335 | 381 | 448 | 480 |
| 26 | 475 | 451 | | | | | --- | 388 | 337 | 380 | 450 | 481 |
| 27 | 475 | 444 | | | | | --- | 393 | 338 | 364 | 448 | 480 |
| 28 | 470 | 431 | | | | | --- | 394 | 357 | 347 | 448 | 482 |
| 29 | 470 | 430 | | | | | 370 | 397 | 371 | 340 | 446 | 484 |
| 30 | 470 | 430 | | | | | 372 | 400 | 374 | 448 | 450 | 486 |
| 31 | 470 | --- | | | | | --- | 401 | --- | 429 | 452 | --- |

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | | | --- | --- | --- | --- | --- | --- | 18.0 | 12.0 | 11.0 | 4.5 |
| 2 | | | --- | --- | --- | --- | 16.0 | 12.5 | 18.0 | 11.5 | 12.0 | 5.5 |
| 3 | | | --- | --- | 11.5 | 2.5 | 17.0 | 9.0 | 17.5 | 9.5 | 12.0 | 5.5 |
| 4 | | | --- | --- | 12.0 | 3.0 | 16.0 | 7.0 | 16.5 | 7.5 | 13.0 | 6.5 |
| 5 | | | --- | --- | --- | --- | 16.0 | 5.5 | 17.5 | 8.5 | 13.5 | 7.0 |
| 6 | | | --- | --- | --- | --- | 16.5 | 5.5 | 17.5 | 9.0 | 14.5 | 9.0 |
| 7 | | | --- | --- | 12.0 | 3.5 | 15.5 | 9.0 | 18.0 | 9.5 | 14.5 | 10.5 |
| 8 | | | --- | --- | 12.5 | 3.5 | 17.0 | 9.5 | 18.0 | 9.5 | 14.0 | 11.0 |
| 9 | | | --- | --- | --- | --- | 18.5 | 9.5 | 19.0 | 11.0 | 13.5 | 10.5 |
| 10 | | | --- | --- | 14.0 | 5.0 | 18.5 | 10.5 | 17.5 | 10.0 | 14.0 | 10.5 |
| 11 | | | --- | --- | 13.5 | 5.0 | 19.5 | 12.0 | 16.0 | 7.0 | 11.5 | 7.0 |
| 12 | | | --- | --- | 13.5 | 4.5 | 19.0 | 12.0 | 17.5 | 7.0 | 11.5 | 8.5 |
| 13 | | | --- | --- | 13.0 | 4.5 | 16.5 | 13.0 | 18.0 | 10.5 | 12.0 | 7.5 |
| 14 | | | --- | --- | 13.0 | 4.5 | 18.0 | 10.5 | 17.5 | 12.0 | 11.5 | 5.5 |
| 15 | | | --- | --- | 12.5 | 4.5 | 17.5 | 8.5 | 16.5 | 12.5 | 11.5 | 5.5 |
| 16 | | | --- | --- | 13.5 | 4.5 | 19.0 | 9.0 | 14.5 | 9.0 | 11.0 | 7.5 |
| 17 | | | 9.0 | 2.5 | 14.0 | 6.5 | 19.5 | 9.5 | 14.5 | 8.0 | 10.0 | 4.0 |
| 18 | | | 8.5 | 2.0 | --- | --- | 19.0 | 10.0 | 14.0 | 7.5 | 11.0 | 5.0 |
| 19 | | | 8.5 | 3.0 | 15.0 | 7.5 | 18.0 | 11.0 | 12.5 | 8.0 | 12.0 | 8.5 |
| 20 | | | 9.0 | 4.5 | --- | --- | 18.0 | 9.0 | 12.0 | 5.0 | 10.5 | 6.5 |
| 21 | | | 11.0 | 3.5 | 14.5 | 7.0 | 19.5 | 9.0 | 13.0 | 5.0 | 8.5 | 3.5 |
| 22 | | | 10.0 | 4.0 | --- | --- | 19.5 | 10.0 | 14.0 | 6.5 | 7.0 | 2.0 |
| 23 | | | 9.5 | 4.0 | 15.5 | 6.5 | 16.5 | 10.5 | 14.0 | 9.5 | 6.5 | .5 |
| 24 | | | 7.5 | 3.5 | 14.0 | 5.5 | 17.5 | 10.5 | 14.5 | 11.0 | 7.0 | 1.5 |
| 25 | | | --- | --- | --- | --- | 19.0 | 10.0 | 14.5 | 10.0 | 7.0 | 1.0 |
| 26 | | | 7.5 | 2.0 | --- | --- | 17.5 | 9.0 | 14.0 | 8.5 | 7.5 | 2.0 |
| 27 | | | 10.0 | 2.0 | 15.5 | 8.5 | 17.0 | 9.5 | 14.5 | 7.5 | 8.5 | 3.0 |
| 28 | | | 9.5 | 2.0 | 15.0 | 5.5 | 18.0 | 9.0 | 13.5 | 7.0 | 8.5 | 4.0 |
| 29 | | | --- | --- | 16.0 | 9.0 | 18.0 | 9.0 | 12.0 | 8.0 | 7.0 | 3.5 |
| 30 | | | 10.5 | 2.0 | --- | --- | --- | --- | 11.0 | 5.0 | 8.0 | 3.0 |
| 31 | | | 10.5 | 2.5 | --- | --- | 18.5 | 14.0 | 10.5 | 5.5 | --- | --- |

## 09092980 BEN GOOD CREEK NEAR RULISON, CO

LOCATION.--Lat 39°35'25", long 108°02'26", in NE¼NW¼ sec.27, T.5 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on left bank 0.2 mi (0.3 km) upstream from East Fork Parachute Creek and 8.3 mi (13.4 km) northwest of Rulison.

DRAINAGE AREA.--4.04 mi$^2$ (10.46 km$^2$).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,520 ft (1,990 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record or those for winter period, which are poor. No regulation or diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13 ft$^3$/s (0.37 m$^3$/s) May 7, 1980, gage height, 2.78 ft (0.847 m); no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft$^3$/s (0.37 m$^3$/s) at 0200 May 7, gage height, 2.78 ft (0.847 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .21 | .22 | .00 | .00 | .00 | .00 | .14 | 9.2 | 4.7 | .82 | .48 | .28 |
| 2 | .21 | .21 | .00 | .00 | .00 | .00 | .16 | 9.7 | 4.4 | .87 | .47 | .25 |
| 3 | .22 | .21 | .00 | .00 | .00 | .00 | .18 | 10 | 4.0 | .85 | .45 | .25 |
| 4 | .22 | .22 | .00 | .00 | .00 | .00 | .20 | 11 | 4.0 | .79 | .44 | .22 |
| 5 | .22 | .22 | .00 | .00 | .00 | .00 | .22 | 11 | 3.9 | .77 | .44 | .22 |
| 6 | .22 | .22 | .00 | .00 | .00 | .00 | .24 | 11 | 3.5 | .73 | .43 | .22 |
| 7 | .22 | .22 | .00 | .00 | .00 | .00 | .27 | 10 | 3.0 | .74 | .44 | .22 |
| 8 | .22 | .21 | .00 | .00 | .00 | .00 | .30 | 6.9 | 2.6 | .76 | .43 | .22 |
| 9 | .22 | .21 | .00 | .00 | .00 | .00 | .34 | 7.0 | 2.4 | .79 | .42 | .22 |
| 10 | .20 | .21 | .00 | .00 | .00 | .00 | .38 | 7.7 | 2.3 | .78 | .40 | .22 |
| 11 | .20 | .21 | .00 | .00 | .00 | .00 | .42 | 7.5 | 2.0 | .74 | .40 | .21 |
| 12 | .20 | .22 | .00 | .00 | .00 | .00 | .45 | 7.5 | 1.3 | .80 | .37 | .21 |
| 13 | .20 | .21 | .00 | .00 | .00 | .00 | .50 | 8.1 | 1.3 | .81 | .37 | .20 |
| 14 | .20 | .18 | .00 | .00 | .00 | .00 | .54 | 9.5 | 1.1 | .86 | .36 | .20 |
| 15 | .20 | .18 | .00 | .00 | .00 | .00 | .60 | 9.2 | 1.0 | .82 | .39 | .20 |
| 16 | .20 | .18 | .00 | .00 | .00 | .00 | .70 | 8.5 | 1.0 | .88 | .40 | .19 |
| 17 | .20 | .17 | .00 | .00 | .00 | .00 | .80 | 8.0 | 1.0 | .88 | .36 | .18 |
| 18 | .21 | .17 | .00 | .00 | .00 | .00 | .90 | 8.3 | 1.0 | .80 | .34 | .18 |
| 19 | .24 | .18 | .00 | .00 | .00 | .00 | 1.1 | 8.5 | .98 | .78 | .34 | .17 |
| 20 | .32 | .18 | .00 | .00 | .00 | .00 | 1.3 | 9.5 | .98 | .77 | .33 | .17 |
| 21 | .41 | .18 | .00 | .00 | .00 | .00 | 1.7 | 9.3 | .98 | .75 | .32 | .17 |
| 22 | .38 | .15 | .00 | .00 | .00 | .00 | 2.3 | 8.1 | .96 | .66 | .34 | .17 |
| 23 | .38 | .10 | .00 | .00 | .00 | .00 | 3.2 | 6.4 | .94 | .67 | .33 | .17 |
| 24 | .38 | .06 | .00 | .00 | .00 | .00 | 3.8 | 4.9 | .92 | .67 | .35 | .17 |
| 25 | .33 | .03 | .00 | .00 | .00 | .00 | 3.0 | 3.6 | .90 | .64 | .32 | .16 |
| 26 | .24 | .00 | .00 | .00 | .00 | .02 | 3.9 | 3.5 | .88 | .56 | .31 | .16 |
| 27 | .24 | .00 | .00 | .00 | .00 | .04 | 4.5 | 4.1 | .88 | .55 | .33 | .15 |
| 28 | .24 | .00 | .00 | .00 | .00 | .06 | 5.6 | 4.4 | .86 | .54 | .31 | .15 |
| 29 | .24 | .00 | .00 | .00 | .00 | .08 | 6.8 | 5.1 | .84 | .53 | .30 | .15 |
| 30 | .24 | .00 | .00 | .00 | --- | .10 | 8.2 | 4.9 | .84 | .49 | .29 | .13 |
| 31 | .23 | --- | .00 | .00 | --- | .12 | --- | 4.7 | --- | .48 | .29 | --- |
| TOTAL | 7.64 | 4.55 | .00 | .00 | .00 | .42 | 52.74 | 237.1 | 55.46 | 22.58 | 11.55 | 5.82 |
| MEAN | .25 | .15 | .000 | .000 | .000 | .014 | 1.76 | 7.65 | 1.85 | .73 | .37 | .19 |
| MAX | .41 | .22 | .00 | .00 | .00 | .12 | 8.2 | 11 | 4.7 | .88 | .48 | .28 |
| MIN | .20 | .00 | .00 | .00 | .00 | .00 | .14 | 3.5 | .84 | .48 | .29 | .13 |
| AC-FT | 15 | 9.0 | .00 | .00 | .00 | .8 | 105 | 470 | 110 | 45 | 23 | 12 |

CAL YR 1979 TOTAL 405.81 MEAN 1.11 MAX 11 MIN .00 AC-FT 805
WTR YR 1980 TOTAL 397.86 MEAN 1.09 MAX 11 MIN .00 AC-FT 789

NOTE.--NO GAGE-HEIGHT RECORD NOV. 22 TO APR. 24.

## 09092980 BEN GOOD CREEK NEAR RULISON, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR | | | | | | | | | | | | |
| 25... | 1015 | 2.8 | 475 | 8.3 | 4.0 | 11.2 | 190 | 0 | 45 | 19 | 40 | 1.3 |
| MAY | | | | | | | | | | | | |
| 16... | 1300 | 7.4 | 450 | 8.5 | 8.5 | 9.2 | 180 | 0 | 43 | 17 | 37 | 1.2 |
| JUN | | | | | | | | | | | | |
| 12... | 1300 | 1.4 | 625 | 8.3 | 12.0 | 8.4 | 250 | 0 | 54 | 27 | 44 | 1.2 |
| JUL | | | | | | | | | | | | |
| 01... | 1300 | .87 | 600 | 8.3 | 14.5 | 8.4 | 250 | 0 | 49 | 30 | 48 | 1.3 |
| 16... | 1200 | .88 | 600 | 8.7 | 12.0 | 8.4 | 240 | 0 | 49 | 29 | 47 | 1.3 |
| AUG | | | | | | | | | | | | |
| 13... | 1200 | .38 | 610 | 8.3 | 11.5 | 9.1 | 250 | 0 | 52 | 28 | 47 | 1.3 |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) | ARSENIC DIS-SOLVED (UG/L AS AS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR | | | | | | | | | | | | |
| 25... | .8 | 210 | 46 | 2.3 | .1 | 18 | 304 | .41 | 2.30 | 1.1 | -- | 3 |
| MAY | | | | | | | | | | | | |
| 16... | .9 | 200 | 33 | 2.7 | .1 | 19 | 281 | .38 | 5.65 | 1.5 | .050 | 3 |
| JUN | | | | | | | | | | | | |
| 12... | 1.1 | 280 | 67 | 4.1 | .4 | 18 | 390 | .53 | 1.57 | .94 | .030 | 2 |
| JUL | | | | | | | | | | | | |
| 01... | 1.0 | 260 | 66 | 2.3 | .8 | 18 | 377 | .51 | .89 | .83 | .000 | 2 |
| 16... | 1.0 | 270 | 64 | 3.3 | .7 | 18 | 379 | .52 | .90 | .62 | .040 | 3 |
| AUG | | | | | | | | | | | | |
| 13... | .7 | 250 | 66 | 3.2 | .5 | 19 | 371 | .50 | .38 | .47 | .010 | 3 |

| DATE | BARIUM, DIS-SOLVED (UG/L AS BA) | BORON, DIS-SOLVED (UG/L AS B) | CADMIUM DIS-SOLVED (UG/L AS CD) | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | LITHIUM DIS-SOLVED (UG/L AS LI) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | STRON-TIUM, DIS-SOLVED (UG/L AS SR) | ZINC, DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR | | | | | | | | | | | | |
| 25... | 80 | 30 | <1 | 1 | <10 | 1 | 9 | <1 | .0 | 1 | 1100 | 5 |
| MAY | | | | | | | | | | | | |
| 16... | 70 | 50 | <1 | 2 | <10 | 2 | 10 | <1 | .0 | 1 | 1000 | <3 |
| JUN | | | | | | | | | | | | |
| 12... | 80 | 90 | <1 | 1 | <10 | 0 | 10 | <1 | .1 | 1 | 1300 | <3 |
| JUL | | | | | | | | | | | | |
| 01... | 90 | 90 | <1 | 3 | <10 | 0 | 10 | <1 | .0 | 1 | 1400 | <3 |
| 16... | 90 | 80 | <1 | 1 | <10 | 0 | 10 | <1 | .0 | 1 | 1400 | <3 |
| AUG | | | | | | | | | | | | |
| 13... | 100 | 130 | <1 | 0 | <10 | 2 | 20 | <1 | .0 | 1 | 1500 | <3 |

## 09093000 PARACHUTE CREEK NEAR PARACHUTE, CO
(Formerly published as Parachute Creek near Grand Valley, CO)

LOCATION.--Lat 39°34'02", long 108°06'37", in SE¼SE¼ sec.36, T.5 S., R.96 W., Garfield County, Hydrologic Unit 14010006, on left bank 0.3 mi (0.5 km) upstream from Gardner Gulch, 0.6 mi (1.0 km) downstream from confluence of West and East Forks, and 8.5 mi (13.7 km) north of Grand Valley.

DRAINAGE AREA.--141 mi$^2$ (365 km$^2$).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1948 to September 1954, October 1964 to September 1970, April 1975 to current year. Prior to October 1979, published as near Grand Valley.

GAGE.--Water-stage recorder. Altitude of gage is 5,730 ft (1,747 m), from topographic map. Prior to Apr. 1, 1975, at sites 0.4 mi (0.6 km) downstream at different datums.

REMARKS.--Records good. Diversions for irrigation of about 75 acres (304,000 m$^2$) above station. One diversion from East Fork bypasses station for irrigation of about 100 acres (405,000 m$^2$) below station.

AVERAGE DISCHARGE.--17 years (water years 1949-54, 1965-70, 1976-80), 21.4 ft$^3$/s (0.606 m$^3$/s), 15,500 acre-ft/yr (19.1 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,310 ft$^3$/s (65.4 m$^3$/s) Aug. 19, 1977, gage height, 6.11 ft (1.862 m), from highwater mark, from rating curve extended above 150 ft$^3$/s (4.2 m$^3$/s), on basis of slope-area measurements at gage heights 4.25 ft (1.295 m) and 6.11 ft (1.862 m); no flow Dec. 2, 1948, many days 1964-67 and 1976-77.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 445 ft$^3$/s (12.6 m$^3$/s) at 1000 May 9, gage height, 4.14 ft (1.262 m), only peak above base of 150 ft$^3$/s (4.2 m$^3$/s); minimum daily, 1.8 ft$^3$/s (0.051 m$^3$/s) Dec. 29, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.6 | 3.7 | 2.0 | 1.9 | 2.6 | 4.9 | 6.0 | 246 | 142 | 46 | 19 | 8.1 |
| 2 | 6.2 | 3.3 | 2.0 | 1.9 | 2.6 | 4.8 | 6.0 | 247 | 134 | 47 | 18 | 8.0 |
| 3 | 5.8 | 3.2 | 2.0 | 1.9 | 2.6 | 5.0 | 5.8 | 248 | 125 | 48 | 18 | 8.0 |
| 4 | 5.8 | 3.1 | 2.0 | 1.9 | 2.6 | 5.1 | 5.8 | 272 | 122 | 44 | 17 | 8.0 |
| 5 | 5.7 | 2.9 | 2.0 | 1.9 | 2.8 | 4.9 | 5.9 | 298 | 118 | 42 | 18 | 8.5 |
| 6 | 5.6 | 2.9 | 2.0 | 1.9 | 2.8 | 5.3 | 6.0 | 331 | 115 | 41 | 18 | 8.5 |
| 7 | 5.5 | 2.8 | 2.0 | 1.9 | 2.8 | 5.1 | 6.1 | 371 | 106 | 40 | 18 | 8.5 |
| 8 | 5.4 | 2.9 | 1.9 | 1.9 | 2.8 | 5.0 | 6.1 | 389 | 98 | 40 | 17 | 8.0 |
| 9 | 5.1 | 3.0 | 2.0 | 1.9 | 2.7 | 4.9 | 6.1 | 420 | 92 | 38 | 17 | 8.1 |
| 10 | 5.5 | 3.0 | 2.0 | 2.1 | 2.6 | 4.9 | 6.2 | 356 | 86 | 36 | 15 | 8.8 |
| 11 | 6.9 | 3.0 | 2.0 | 2.0 | 2.6 | 5.0 | 6.3 | 377 | 81 | 33 | 14 | 8.9 |
| 12 | 6.6 | 3.0 | 1.9 | 1.9 | 2.6 | 5.1 | 7.5 | 409 | 80 | 32 | 14 | 8.1 |
| 13 | 6.6 | 2.9 | 1.9 | 1.9 | 2.7 | 5.1 | 8.9 | 349 | 78 | 30 | 14 | 7.9 |
| 14 | 6.4 | 2.8 | 1.9 | 2.3 | 3.0 | 5.2 | 10 | 323 | 76 | 31 | 15 | 8.0 |
| 15 | 6.5 | 2.6 | 1.9 | 2.4 | 3.7 | 5.2 | 12 | 319 | 75 | 26 | 16 | 7.9 |
| 16 | 6.3 | 2.6 | 1.9 | 2.3 | 3.5 | 5.2 | 15 | 331 | 74 | 24 | 16 | 7.8 |
| 17 | 6.4 | 2.5 | 1.9 | 2.2 | 3.3 | 5.1 | 19 | 324 | 71 | 23 | 14 | 7.8 |
| 18 | 6.2 | 2.5 | 1.9 | 2.3 | 4.6 | 5.2 | 26 | 277 | 68 | 22 | 14 | 7.8 |
| 19 | 5.2 | 2.6 | 1.9 | 2.3 | 5.0 | 5.2 | 46 | 261 | 66 | 22 | 13 | 7.4 |
| 20 | 6.2 | 2.6 | 1.9 | 2.4 | 4.7 | 5.2 | 73 | 269 | 63 | 22 | 13 | 7.3 |
| 21 | 8.5 | 2.6 | 1.9 | 2.4 | 4.5 | 5.4 | 106 | 273 | 62 | 21 | 13 | 7.5 |
| 22 | 6.7 | 2.6 | 1.9 | 2.4 | 4.3 | 5.4 | 133 | 355 | 61 | 21 | 12 | 7.3 |
| 23 | 6.6 | 2.5 | 1.9 | 2.4 | 4.2 | 5.4 | 162 | 322 | 56 | 20 | 11 | 7.2 |
| 24 | 6.5 | 2.4 | 1.9 | 2.4 | 4.2 | 5.7 | 200 | 311 | 54 | 21 | 8.5 | 7.4 |
| 25 | 6.3 | 2.4 | 1.9 | 2.4 | 4.4 | 5.9 | 179 | 261 | 53 | 21 | 7.8 | 7.3 |
| 26 | 6.0 | 2.5 | 1.9 | 2.4 | 4.3 | 5.8 | 165 | 223 | 51 | 21 | 7.7 | 6.9 |
| 27 | 5.8 | 2.5 | 1.9 | 2.4 | 4.5 | 5.8 | 179 | 201 | 50 | 20 | 7.7 | 7.1 |
| 28 | 5.7 | 2.4 | 1.9 | 2.6 | 4.7 | 5.8 | 217 | 185 | 50 | 19 | 7.6 | 8.0 |
| 29 | 6.1 | 2.2 | 1.8 | 2.7 | 5.0 | 5.8 | 244 | 171 | 48 | 19 | 7.5 | 9.8 |
| 30 | 5.7 | 2.0 | 1.9 | 2.6 | --- | 5.9 | 264 | 159 | 46 | 20 | 7.8 | 9.8 |
| 31 | 4.5 | --- | 1.8 | 2.5 | --- | 5.8 | --- | 151 | --- | 19 | 8.0 | --- |
| TOTAL | 187.9 | 82.0 | 59.7 | 68.4 | 102.7 | 164.1 | 2132.7 | 9049 | 2401 | 909 | 416.6 | 239.7 |
| MEAN | 6.06 | 2.73 | 1.93 | 2.21 | 3.54 | 5.29 | 71.1 | 292 | 80.0 | 29.3 | 13.4 | 7.99 |
| MAX | 8.5 | 3.7 | 2.0 | 2.7 | 5.0 | 5.9 | 264 | 420 | 142 | 48 | 19 | 9.8 |
| MIN | 4.5 | 2.0 | 1.8 | 1.9 | 2.6 | 4.8 | 5.8 | 151 | 46 | 19 | 7.5 | 6.9 |
| AC-FT | 373 | 163 | 118 | 136 | 204 | 325 | 4230 | 17950 | 4760 | 1800 | 826 | 475 |

CAL YR 1979 TOTAL 19502.73 MEAN 53.4 MAX 847 MIN .18 AC-FT 38680
WTR YR 1980 TOTAL 15812.80 MEAN 43.2 MAX 420 MIN 1.8 AC-FT 31360

## 09093000 PARACHUTE CREEK NEAR PARACHUTE, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1974 to current year (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1975 to current year.
WATER TEMPERATURE: April 1975 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1975.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office. This station formerly known as Parachute Creek near Grand Valley, Colo.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,560 micromhos Oct. 27, 1977; minimum, 213 micromhos May 7, 1980.
WATER TEMPERATURES: Maximum, 34.0°C July 30, 1977; minimum, -0.5°C Jan. 11, 31, Feb. 9, 1980.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,150 micromhos Nov. 7; minimum, 213 micromhos May 7.
WATER TEMPERATURES: Maximum, 14.5°C Aug. 12, 13; minimum, -0.5°C Jan. 11, 31, Feb. 9.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 03... | 1500 | 5.6 | 990 | 7.8 | 12.0 | 8.4 | 320 | 24 | 68 | 37 |
| NOV | | | | | | | | | | |
| 07... | 1415 | 2.8 | 1150 | -- | 8.5 | -- | -- | -- | -- | -- |
| 13... | 1500 | 2.9 | 1000 | 8.2 | 5.0 | 11.5 | 260 | 120 | 74 | 18 |
| DEC | | | | | | | | | | |
| 07... | 1430 | 1.9 | 850 | 8.3 | 7.0 | 10.6 | -- | -- | -- | -- |
| 20... | 1000 | 1.9 | -- | 8.4 | 3.0 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 25... | 1300 | 2.4 | 940 | 8.3 | 5.0 | 11.6 | 370 | 55 | 67 | 48 |
| MAR | | | | | | | | | | |
| 05... | 1400 | 5.0 | 970 | -- | 8.0 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 11... | 1300 | 6.0 | 1050 | 8.3 | 10.0 | 9.8 | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 09... | 1000 | 420 | 460 | 8.3 | 6.0 | 10.0 | 200 | 0 | 47 | 20 |
| JUL | | | | | | | | | | |
| 09... | 1200 | 39 | 790 | 8.2 | 10.0 | 8.6 | 310 | 21 | 62 | 38 |

09093000 PARACHUTE CREEK NEAR PARACHUTE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | SODIUM, DIS- SOLVED (MG/L AS NA) | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | SOLIDS, DIS- SOLVED (TONS PER AC-FT) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 03... | 63 | 1.5 | 2.6 | 300 | 140 | 6.1 | .7 | 17 | 516 | .70 |
| NOV | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 120 | 3.2 | 3.3 | 140 | 160 | 160 | .2 | 8.0 | 628 | .85 |
| DEC | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 25... | 76 | 1.7 | 3.1 | 310 | 180 | 29 | .7 | 18 | 608 | .83 |
| MAR | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 09... | 29 | .9 | 1.4 | 230 | 40 | 4.6 | .3 | 18 | 300 | .41 |
| JUL | | | | | | | | | | |
| 09... | 58 | 1.4 | 2.6 | 290 | 130 | 16 | .8 | 18 | 500 | .68 |

| DATE | SOLIDS, DIS- SOLVED (TONS PER DAY) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, ORGANIC TOTAL (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO- GEN, TOTAL (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 03... | 7.89 | 1.9 | -- | .010 | .45 | .46 | 2.4 | .000 | -- | 120 |
| NOV | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 4.92 | -- | .12 | -- | -- | -- | -- | -- | .010 | -- |
| DEC | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 25... | 3.94 | 2.0 | -- | .010 | .03 | .04 | 2.0 | .010 | -- | 110 |
| MAR | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 09... | 340 | 1.5 | -- | .040 | .82 | .86 | 2.4 | .370 | -- | 50 |
| JUL | | | | | | | | | | |
| 09... | 52.9 | 1.6 | -- | .030 | .58 | .61 | 2.2 | .030 | -- | 90 |

| DATE | IRON, DIS- SOLVED (UG/L AS FE) | MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) | CARBON, ORGANIC TOTAL (MG/L AS C) | CARBON, ORGANIC DIS- SOLVED (MG/L AS C) | PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M | PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M | CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) | CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) | BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 03... | <10 | 10 | <1 | -- | 3.5 | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | 20 | -- | 9 | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | 20.6 | 22.5 | 56.8 | .000 | 33.5 |
| JAN | | | | | | | | | | |
| 25... | <10 | -- | -- | 5.7 | 5.1 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | .080 | .080 | .010 | .000 | .00 |
| APR | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 09... | 60 | 190 | 3 | 9.3 | 7.3 | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | |
| 09... | <10 | -- | -- | 24 | 18 | -- | -- | -- | -- | -- |

## 09093000 PARACHUTE CREEK NEAR PARACHUTE, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, TOTAL RECOVERABLE (UG/L AS BA) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | 1500 | 0 | 0 | 4 | 4 | 100 | 90 | 0 | <1 | 3 | 2 | 0 |
| MAY 09... | 1000 | 8700 | 0 | 7 | 3 | 300 | 100 | 0 | <1 | 1 | <1 | 10 |

| DATE | CHROMIUM, DISSOLVED (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | COPPER, DISSOLVED (UG/L AS CU) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | LEAD, DISSOLVED (UG/L AS PB) | LITHIUM TOTAL RECOVERABLE (UG/L AS LI) | LITHIUM DISSOLVED (UG/L AS LI) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MERCURY DISSOLVED (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | 10 | 0 | <3 | 0 | 1 | 24 | 45 | 10 | <4 | .1 | .0 | 15 |
| MAY 09... | 0 | 5 | <3 | 11 | 2 | 9 | 0 | 20 | 6 | .0 | .0 | 6 |

| DATE | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SELENIUM, DISSOLVED (UG/L AS SE) | STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | ZINC, DISSOLVED (UG/L AS ZN) | CYANIDE TOTAL (MG/L AS CN) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | <10 | 0 | 2 | 4 | 3 | 1100 | 1200 | 10 | 0 | 5 | .00 |
| MAY 09... | 11 | 12 | 0 | 1 | 1 | 550 | 710 | 7.0 | 50 | 10 | .00 |

### 09093000 PARACHUTE CREEK NEAR PARACHUTE, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 920 | 877 | 881 | 911 | 959 | 972 | 1020 | 362 | 582 | 746 | 828 | 814 |
| 2 | 917 | 884 | 882 | 908 | 965 | 978 | 1020 | 327 | 594 | 747 | 828 | 824 |
| 3 | 892 | 889 | 883 | 912 | 972 | 974 | 1030 | 288 | 607 | 751 | 833 | 827 |
| 4 | 851 | 896 | 881 | 912 | 979 | 973 | 1030 | 252 | 615 | 765 | 832 | 831 |
| 5 | 853 | 898 | 883 | 912 | 978 | 983 | 1040 | 239 | 614 | 774 | 840 | 840 |
| 6 | 854 | 900 | 883 | 913 | 979 | 980 | 1030 | 228 | 615 | 777 | 842 | 845 |
| 7 | 855 | 904 | 883 | 913 | 982 | 986 | 1030 | 244 | 620 | 783 | 842 | 845 |
| 8 | 856 | 903 | 886 | 915 | 980 | 997 | 1040 | 473 | 634 | 783 | 836 | 847 |
| 9 | 857 | 899 | 888 | 918 | 984 | 1000 | 1050 | 470 | 646 | 814 | 834 | 845 |
| 10 | 857 | 896 | 889 | 894 | 990 | 1000 | 1050 | 470 | 660 | 754 | 826 | 843 |
| 11 | 854 | 895 | 888 | 918 | 989 | 1010 | 1050 | 451 | 671 | 751 | 823 | 850 |
| 12 | 854 | 895 | 894 | 912 | 995 | 1000 | 1040 | 432 | 674 | 755 | 824 | 844 |
| 13 | 853 | 898 | 891 | 922 | 998 | 1010 | 1040 | 450 | 670 | 762 | 824 | 846 |
| 14 | 854 | 896 | 893 | 853 | 970 | 1010 | 1030 | 480 | 678 | 768 | 828 | 832 |
| 15 | 851 | 895 | 894 | 897 | 893 | 1010 | 1010 | 499 | 684 | 778 | 818 | 850 |
| 16 | 852 | 892 | 895 | 922 | 961 | 1010 | 974 | 502 | 686 | 789 | 823 | 864 |
| 17 | 852 | 894 | 896 | 929 | 987 | 1020 | 944 | 489 | 689 | 782 | 821 | 866 |
| 18 | 852 | 884 | 897 | 931 | 877 | 1020 | 833 | 497 | 692 | 778 | 823 | 870 |
| 19 | 870 | 884 | 898 | 933 | 871 | 1030 | 682 | 506 | 700 | 784 | 825 | 874 |
| 20 | 847 | 884 | 899 | 936 | 937 | 1030 | 638 | 496 | 703 | 783 | 823 | 876 |
| 21 | 815 | 886 | 900 | 941 | 960 | 1030 | 561 | 475 | 694 | 783 | 823 | 875 |
| 22 | 837 | 885 | 900 | 943 | 953 | 1030 | 507 | 468 | 712 | 787 | 821 | 876 |
| 23 | 829 | 886 | 902 | 945 | 952 | 1040 | 411 | 472 | 715 | 792 | 819 | 878 |
| 24 | 822 | 886 | 903 | 949 | 960 | 1040 | 365 | 480 | 715 | 789 | 804 | 880 |
| 25 | 825 | 883 | 904 | 952 | 964 | 1030 | 463 | 501 | 733 | 792 | 806 | 880 |
| 26 | 827 | 881 | 906 | 955 | 969 | 1040 | 467 | 524 | 741 | 791 | 809 | 884 |
| 27 | 827 | 879 | 906 | 959 | 970 | 1020 | 468 | 537 | 746 | 804 | 808 | 886 |
| 28 | 832 | 877 | 906 | 937 | 967 | 1010 | 460 | 541 | 747 | 810 | 813 | 892 |
| 29 | 819 | 881 | 908 | 920 | 964 | 1010 | 409 | 546 | 753 | 822 | 812 | 900 |
| 30 | 832 | 881 | 909 | 951 | --- | 1010 | 386 | 559 | 750 | 829 | 812 | 902 |
| 31 | 858 | --- | 909 | 964 | --- | 1010 | --- | 572 | --- | 821 | 807 | --- |

## 09093000 PARACHUTE CREEK NEAR PARACHUTE, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 12.0 | 8.0 | 7.5 | 2.5 | 5.5 | .5 | 5.0 | 2.5 | 7.0 | 1.0 | 10.0 | 3.5 |
| 2 | 11.5 | 8.0 | 8.0 | 3.5 | 6.0 | 1.5 | 5.0 | 2.5 | 7.0 | 1.5 | 8.5 | 3.0 |
| 3 | 11.5 | 8.0 | 8.0 | 4.0 | 7.0 | 3.0 | 5.0 | 2.5 | 7.5 | 3.0 | 7.5 | 4.5 |
| 4 | 11.5 | 7.0 | 8.0 | 4.5 | 6.5 | 2.5 | 5.5 | 3.0 | 8.5 | 3.0 | 8.5 | 5.0 |
| 5 | 11.5 | 7.5 | 9.0 | 4.5 | 7.0 | 3.0 | 4.5 | 3.0 | 8.0 | 1.5 | 7.5 | 4.0 |
| 6 | 12.0 | 7.5 | 9.0 | 4.0 | 7.0 | 2.5 | 5.5 | 1.5 | 7.5 | 3.5 | 6.5 | 5.0 |
| 7 | 12.0 | 7.5 | 8.5 | 6.0 | 7.0 | 3.0 | 5.5 | 2.0 | 6.5 | 2.0 | 7.5 | 4.0 |
| 8 | 11.5 | 7.5 | 8.0 | 6.0 | 8.0 | 4.5 | 6.0 | 2.5 | 6.0 | .0 | 8.5 | 4.0 |
| 9 | 11.0 | 7.5 | 8.0 | 5.5 | 7.5 | 3.5 | 5.5 | 4.5 | 6.5 | -0.5 | 9.5 | 3.0 |
| 10 | 11.5 | 7.5 | 8.0 | 3.5 | 7.0 | 3.0 | 5.5 | 1.5 | 7.0 | .0 | 10.5 | 3.0 |
| 11 | 11.5 | 7.0 | 7.5 | 4.0 | 5.5 | .5 | 5.0 | -0.5 | 7.5 | .0 | 8.5 | 3.0 |
| 12 | 11.5 | 7.0 | 8.0 | 3.0 | 3.5 | .0 | 5.0 | 3.0 | 8.0 | 1.0 | 9.0 | 4.0 |
| 13 | 11.5 | 7.0 | 8.0 | 3.0 | 5.0 | .5 | 8.0 | 5.0 | 8.5 | 2.5 | 10.0 | 2.0 |
| 14 | 9.5 | 7.0 | 8.0 | 3.5 | 5.0 | 1.0 | 6.5 | 5.5 | 6.0 | 4.0 | 11.0 | 3.0 |
| 15 | 11.0 | 6.5 | 8.0 | 3.0 | 5.5 | 1.0 | 7.5 | 4.0 | 7.5 | 5.0 | 9.5 | 4.0 |
| 16 | 11.0 | 7.5 | 8.0 | 3.0 | 6.0 | 1.5 | 7.0 | 4.5 | 9.0 | 4.5 | 8.5 | 2.5 |
| 17 | 10.0 | 6.5 | 8.0 | 3.0 | 6.5 | 2.0 | 7.0 | 5.0 | 7.0 | 4.5 | 9.5 | 1.0 |
| 18 | 10.5 | 7.5 | 7.5 | 4.5 | 6.0 | 2.0 | 7.0 | 3.5 | 7.0 | 4.0 | 10.5 | 2.5 |
| 19 | 10.5 | 8.5 | 5.5 | 3.5 | 6.0 | 1.5 | 4.5 | 2.0 | 7.5 | 4.0 | 11.5 | 4.0 |
| 20 | 9.5 | 6.5 | 6.5 | 3.5 | 6.0 | 2.0 | 5.5 | 1.5 | 7.0 | 4.5 | 11.0 | 3.0 |
| 21 | 7.0 | 3.5 | 5.5 | 2.5 | 6.5 | 2.0 | 7.5 | 2.0 | 7.5 | 4.5 | 11.5 | 3.5 |
| 22 | 9.5 | 4.0 | 5.5 | 1.0 | 6.0 | 4.5 | 6.0 | 1.0 | 8.5 | 4.5 | 9.0 | 4.5 |
| 23 | 9.0 | 4.5 | 6.0 | 1.0 | 6.5 | 2.0 | 6.0 | .5 | 7.5 | 4.0 | 9.5 | 4.5 |
| 24 | 9.0 | 4.5 | 6.0 | 3.5 | 6.0 | 2.0 | 6.5 | 1.5 | 9.0 | 2.0 | 11.5 | 4.0 |
| 25 | 10.0 | 5.0 | 6.5 | 3.5 | 6.0 | 2.0 | 7.0 | 2.0 | 8.5 | 1.5 | 6.5 | 4.0 |
| 26 | 10.0 | 5.5 | 6.0 | 3.5 | 5.5 | 2.5 | 7.0 | 1.5 | 9.5 | 2.5 | 10.5 | 3.0 |
| 27 | 9.5 | 5.0 | 6.0 | 1.0 | 5.0 | 3.0 | 6.5 | 2.0 | 10.0 | 3.0 | 11.5 | 2.5 |
| 28 | 9.5 | 4.5 | 5.0 | .5 | 6.0 | 2.5 | 4.5 | 1.0 | 10.0 | 3.5 | 8.5 | 4.5 |
| 29 | 7.0 | 4.5 | 4.5 | .0 | 5.0 | 3.0 | 5.0 | 1.5 | 8.0 | 4.5 | 10.0 | 4.0 |
| 30 | 6.5 | 3.0 | 4.0 | .0 | 5.5 | 1.0 | 6.0 | .0 | --- | --- | 9.0 | 3.0 |
| 31 | 7.5 | 3.0 | --- | --- | 4.0 | .0 | 6.5 | -0.5 | --- | --- | 9.5 | 3.5 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 11.5 | 3.5 | 7.5 | 4.5 | 10.5 | 4.5 | 12.5 | 9.0 | 12.5 | 9.0 | 12.5 | 7.0 |
| 2 | 7.0 | 3.5 | 9.5 | 4.0 | 10.5 | 4.0 | 12.5 | 9.0 | 13.5 | 9.0 | 13.0 | 7.0 |
| 3 | 11.0 | 3.0 | 8.5 | 4.0 | 11.5 | 6.5 | 13.5 | 9.0 | 13.5 | 8.5 | 13.0 | 7.5 |
| 4 | 12.5 | 4.0 | 9.0 | 5.0 | 12.0 | 6.0 | 13.0 | 8.0 | 14.0 | 8.0 | 13.0 | 7.5 |
| 5 | 12.0 | 4.5 | 8.5 | 5.0 | 12.0 | 5.5 | 12.5 | 7.0 | 13.5 | 8.0 | 13.0 | 7.5 |
| 6 | 11.0 | 4.5 | 10.0 | 5.5 | 12.0 | 6.0 | 12.5 | 7.0 | 14.0 | 8.5 | 13.0 | 8.5 |
| 7 | 9.5 | 3.5 | 8.0 | 6.0 | 12.0 | 5.5 | 11.5 | 8.0 | 14.0 | 8.5 | 12.0 | 9.0 |
| 8 | 12.0 | 2.5 | 10.0 | 5.5 | 12.0 | 5.5 | 13.0 | 9.0 | 14.0 | 8.5 | 11.0 | 9.0 |
| 9 | 13.0 | 3.5 | 7.5 | 5.0 | 13.5 | 6.5 | 13.0 | 8.5 | 14.0 | 9.0 | 10.0 | 9.0 |
| 10 | 12.0 | 5.0 | 8.5 | 5.0 | 13.5 | 6.5 | 12.5 | 9.0 | 14.0 | 8.5 | 10.5 | 9.0 |
| 11 | 10.0 | 4.5 | 8.0 | 4.0 | 13.0 | 7.0 | 13.5 | 9.0 | 14.0 | 7.5 | 11.0 | 7.5 |
| 12 | 11.5 | 3.0 | 5.5 | 2.5 | 12.5 | 6.5 | 14.0 | 9.0 | 14.5 | 7.5 | 11.0 | 8.5 |
| 13 | 12.5 | 3.0 | 9.5 | 4.0 | 12.0 | 6.5 | 12.5 | 9.0 | 14.5 | 9.0 | 12.5 | 7.5 |
| 14 | 14.0 | 3.5 | 9.0 | 3.5 | 11.5 | 6.0 | 14.0 | 8.5 | 13.5 | 9.0 | 11.5 | 7.5 |
| 15 | 13.5 | 4.5 | 9.5 | 4.5 | 11.0 | 6.5 | 13.5 | 8.0 | 13.5 | 9.5 | 12.0 | 7.5 |
| 16 | 13.0 | 4.0 | 9.5 | 4.5 | 11.5 | 6.5 | 14.0 | 8.0 | 12.5 | 8.5 | 12.0 | 8.5 |
| 17 | 13.0 | 3.5 | 7.5 | 3.0 | 11.5 | 7.0 | 14.0 | 8.0 | 13.5 | 8.0 | 12.0 | 7.0 |
| 18 | 12.5 | 3.5 | 10.0 | 3.0 | 12.5 | 7.0 | 14.0 | 8.5 | 14.0 | 8.0 | 12.0 | 7.0 |
| 19 | 12.0 | 2.5 | 10.0 | 4.5 | 11.0 | 7.5 | 14.0 | 8.5 | 12.5 | 8.0 | 12.5 | 8.0 |
| 20 | 11.5 | 3.0 | 11.5 | 5.0 | 12.5 | 7.5 | 13.5 | 8.0 | 13.0 | 7.0 | 11.5 | 7.5 |
| 21 | 10.5 | 3.0 | 13.0 | 5.5 | 12.5 | 7.0 | 14.0 | 8.0 | 13.5 | 7.0 | 11.0 | 7.0 |
| 22 | 9.0 | 4.0 | 13.0 | 5.5 | 12.5 | 7.0 | 14.0 | 8.0 | 13.5 | 7.0 | 11.0 | 6.5 |
| 23 | 8.5 | 4.0 | 11.0 | 5.5 | 11.5 | 7.0 | 12.5 | 8.5 | 12.0 | 8.5 | 11.0 | 6.0 |
| 24 | 7.5 | 4.0 | 8.5 | 3.5 | 12.5 | 7.0 | 13.0 | 8.5 | 11.5 | 9.0 | 11.0 | 6.5 |
| 25 | 8.5 | 2.0 | 7.5 | 2.5 | 12.5 | 7.0 | 14.0 | 8.5 | 12.0 | 8.5 | 11.0 | 6.5 |
| 26 | 8.0 | 2.0 | 9.0 | 2.5 | 13.0 | 7.5 | 13.5 | 8.0 | 13.5 | 8.0 | 11.0 | 6.5 |
| 27 | 8.5 | 2.5 | 11.0 | 3.5 | 12.5 | 7.5 | 14.0 | 8.5 | 13.5 | 7.5 | 11.5 | 7.0 |
| 28 | 10.0 | 3.5 | 11.0 | 3.5 | 12.0 | 7.0 | 13.5 | 8.0 | 13.5 | 7.5 | 11.5 | 7.0 |
| 29 | 9.0 | 4.5 | 9.5 | 5.5 | 12.5 | 7.0 | 13.5 | 8.0 | 11.0 | 8.5 | 11.5 | 7.0 |
| 30 | 8.0 | 4.5 | 11.0 | 4.0 | 13.0 | 8.5 | 13.5 | 9.0 | 12.0 | 7.0 | 11.5 | 6.5 |
| 31 | --- | --- | 11.0 | 4.5 | --- | --- | 14.0 | 8.5 | 11.5 | 7.5 | --- | --- |

## 09093000 PARACHUTE CREEK NEAR PARACHUTE, CO--Continued

### SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | 1430 | 5.7 | 26 | .40 | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 07... | 1400 | 2.8 | 1 | .01 | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 25... | 1300 | 2.4 | 9 | .06 | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 11... | 1330 | 5.0 | 3 | .05 | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 1930 | 202 | 2470 | 1350 | 16 | 25 | 54 | 85 | 92 | 97 | 100 | -- |
| MAY | | | | | | | | | | | | |
| 09... | 1400 | 421 | 2120 | 2400 | -- | -- | -- | 43 | 53 | 70 | 94 | 100 |
| JUN | | | | | | | | | | | | |
| 12... | 1030 | 83 | 36 | 8.1 | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | |
| 09... | 1100 | 39 | 15 | 1.6 | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 1500 | 22 | 20 | 1.2 | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 25... | 1300 | 7.7 | 2 | .04 | -- | -- | -- | -- | -- | -- | -- | -- |

## 09093500 PARACHUTE CREEK AT PARACHUTE. CO
(Formerly published as Parachute Creek at Grand Valley. CO)

LOCATION.--Lat 39°27'11". long 108°03'33". in SE¼NW¼ sec.12. T.7 S.. R.96 W.. Garfield County. Hydrologic Unit 14010005. on left bank 1.300 ft (396 m) upstream from cemetery bridge in Grand Valley. 2.000 ft (610 m) downstream from headgate of Diamond ditch. and 1.4 mi (2.3 km) upstream from mouth.

DRAINAGE AREA.--198 mi² (513 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1921 to September 1927. October 1948 to September 1954. October 1974 to current year. Prior to October 1980. published as at Grand Valley.

GAGE.--Water-stage recorder. Altitude of gage is 5.100 ft (1.554 m). from topographic map (revised). Nonrecording gage Apr. 7. 1921. to Sept. 30. 1927; water-stage recorder Oct. 1. 1948. to Sept. 30. 1954. at site 75 ft (23 m) upstream at different datum; and October 1974 to December 23. 1975. at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records good. Diversions above station for irrigation of 1.400 acres (5.67 km²) and 400 acres (1.62 km²) along Colorado River.

AVERAGE DISCHARGE.--18 years (water years 1922-27. 1949-54. 1975-80). 32.0 ft³/s (0.906 m³/s). 23.180 acre-ft/yr (28.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge. 2.600 ft³/s (73.6 m³/s) July 31. 1976. gage height. 9.47 ft (2.886 m). from high-water marks. result of slope-area measurement; no flow for short periods 1926-27. 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge. 738 ft³/s (20.9 m³/s) at 0300 May 12. gage height. 6.12 ft (1.865 m). only peak above base of 200 ft³/s (5.7 m³/s); minimum daily. 3.4 ft³/s (0.096 m³/s) Oct. 4.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.8 | 14 | 13 | 15 | 13 | 18 | 19 | 402 | 194 | 44 | 19 | 12 |
| 2 | 4.8 | 14 | 13 | 15 | 13 | 18 | 19 | 409 | 172 | 43 | 19 | 12 |
| 3 | 4.4 | 13 | 14 | 14 | 13 | 18 | 19 | 409 | 158 | 44 | 19 | 12 |
| 4 | 3.4 | 13 | 14 | 14 | 12 | 19 | 20 | 391 | 155 | 47 | 18 | 12 |
| 5 | 4.1 | 13 | 14 | 14 | 13 | 19 | 20 | 412 | 150 | 45 | 18 | 11 |
| 6 | 4.4 | 13 | 14 | 14 | 13 | 19 | 20 | 426 | 149 | 46 | 18 | 11 |
| 7 | 4.4 | 13 | 13 | 14 | 14 | 21 | 20 | 461 | 140 | 46 | 18 | 12 |
| 8 | 4.6 | 14 | 13 | 14 | 14 | 19 | 20 | 489 | 137 | 44 | 18 | 11 |
| 9 | 4.8 | 14 | 13 | 14 | 14 | 18 | 20 | 545 | 116 | 40 | 19 | 12 |
| 10 | 5.0 | 13 | 13 | 29 | 14 | 18 | 20 | 579 | 107 | 37 | 18 | 11 |
| 11 | 5.3 | 13 | 13 | 15 | 14 | 18 | 19 | 623 | 108 | 36 | 17 | 11 |
| 12 | 5.5 | 12 | 13 | 14 | 13 | 18 | 20 | 688 | 108 | 35 | 13 | 11 |
| 13 | 5.7 | 12 | 13 | 20 | 13 | 18 | 20 | 606 | 97 | 34 | 11 | 12 |
| 14 | 6.0 | 12 | 13 | 35 | 32 | 18 | 20 | 500 | 83 | 34 | 11 | 13 |
| 15 | 6.0 | 12 | 13 | 16 | 50 | 18 | 20 | 507 | 75 | 33 | 13 | 14 |
| 16 | 6.7 | 14 | 13 | 14 | 21 | 18 | 21 | 506 | 74 | 29 | 15 | 17 |
| 17 | 7.6 | 14 | 13 | 14 | 17 | 17 | 22 | 561 | 73 | 28 | 14 | 15 |
| 18 | 8.4 | 14 | 13 | 14 | 39 | 18 | 22 | 507 | 69 | 27 | 13 | 13 |
| 19 | 9.8 | 14 | 14 | 14 | 26 | 18 | 30 | 451 | 65 | 26 | 13 | 14 |
| 20 | 13 | 16 | 14 | 14 | 30 | 17 | 38 | 438 | 64 | 24 | 12 | 11 |
| 21 | 12 | 15 | 15 | 14 | 20 | 18 | 61 | 473 | 62 | 24 | 12 | 11 |
| 22 | 13 | 15 | 15 | 14 | 22 | 18 | 98 | 512 | 61 | 22 | 12 | 9.5 |
| 23 | 13 | 15 | 15 | 14 | 21 | 18 | 154 | 485 | 58 | 21 | 12 | 7.0 |
| 24 | 13 | 15 | 15 | 14 | 18 | 18 | 194 | 446 | 54 | 21 | 11 | 9.2 |
| 25 | 13 | 15 | 15 | 13 | 18 | 19 | 225 | 387 | 51 | 21 | 12 | 8.8 |
| 26 | 13 | 15 | 15 | 13 | 17 | 19 | 243 | 317 | 49 | 21 | 12 | 8.4 |
| 27 | 13 | 15 | 15 | 13 | 18 | 19 | 258 | 298 | 49 | 20 | 12 | 8.7 |
| 28 | 13 | 15 | 15 | 13 | 18 | 19 | 276 | 238 | 45 | 20 | 13 | 8.7 |
| 29 | 13 | 15 | 15 | 14 | 18 | 19 | 304 | 227 | 45 | 21 | 13 | 8.9 |
| 30 | 13 | 14 | 15 | 14 | --- | 19 | 374 | 217 | 45 | 20 | 13 | 9.1 |
| 31 | 14 | --- | 15 | 14 | --- | 19 | --- | 200 | --- | 19 | 12 | --- |
| TOTAL | 261.7 | 416 | 431 | 477 | 558 | 570 | 2616 | 13710 | 2813 | 972 | 450 | 336.3 |
| MEAN | 8.44 | 13.9 | 13.9 | 15.4 | 19.2 | 18.4 | 87.2 | 442 | 93.8 | 31.4 | 14.5 | 11.2 |
| MAX | 14 | 16 | 15 | 35 | 50 | 21 | 374 | 688 | 194 | 47 | 19 | 17 |
| MIN | 3.4 | 12 | 13 | 13 | 12 | 17 | 19 | 200 | 45 | 19 | 11 | 7.0 |
| AC-FT | 519 | 825 | 855 | 946 | 1110 | 1130 | 5190 | 27190 | 5580 | 1930 | 893 | 667 |

CAL YR 1979 TOTAL 20783.2 MEAN 56.9 MAX 776 MIN 3.4 AC-FT 41220
WTR YR 1980 TOTAL 23611.0 MEAN 64.5 MAX 688 MIN 3.4 AC-FT 46830

## 09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1974 to current year (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1975 to current year.
WATER TEMPERATURE: January 1975 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1974 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1975. Pumping sediment sampler since October 1974.

REMARKS.--Prior to Dec. 23, 1975, station was 0.5 mi (0.8 km) downstream from present location. Since May 1976, daily samples of suspended sediment have been collected by an observer to better define the pumping sediment record. This station formerly known as Parachute Creek at Grand Valley, CO.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,440 micromhos June 4, 1977; minimum, 811 micromhos May 21, 1980.
WATER TEMPERATURES: Maximum, 32.0°C June 26, 1977, July 26, 27, 30, 1978; minimum, 0.0°C Mar. 5, Dec. 20-23, 1977, Feb. 6, 7, 9, 1979.
SEDIMENT CONCENTRATIONS: Maximum daily, 95,000 mg/L Aug. 25, 1977; minimum daily, 3 mg/L July 18, 1977.
SEDIMENT LOADS: Maximum daily, 82,000 tons (74,400 t) July 31, 1976; minimum daily, less than 0.005 ton (0.005 t) on many days during 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,480 micromhos Sept. 1, 24; minimum, 311 micromhos May 21.
WATER TEMPERATURES: Maximum, 23.5°C Aug. 13; minimum, 0.0°C several days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily, 20,500 mg/L Feb. 15; minimum daily, 6 mg/L Oct. 2.
SEDIMENT LOADS: Maximum daily, 6,790 tons (6,160 t), May 12, minimum daily, 0.07 ton (0.06 t) Oct. 4.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 05... | 1215 | 4.1 | 1750 | 7.7 | 12.0 | 10.4 | 570 | 150 | 110 | 72 |
| DEC | | | | | | | | | | |
| 07... | 1200 | 14 | 1150 | 8.2 | 3.5 | 10.3 | -- | -- | -- | -- |
| 20... | 0900 | 14 | -- | 8.2 | .5 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 25... | 1500 | 14 | 1200 | 8.1 | 6.0 | 11.4 | 470 | 120 | 88 | 60 |
| MAR | | | | | | | | | | |
| 05... | 1700 | 18 | 1200 | -- | 8.5 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 11... | 0900 | 20 | 1250 | 8.3 | 5.0 | 10.8 | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 09... | 1500 | 568 | 540 | 8.2 | 9.0 | 9.4 | 220 | 12 | 49 | 24 |
| JUL | | | | | | | | | | |
| 08... | 1200 | 46 | 1090 | 8.2 | 15.5 | 8.6 | 410 | 96 | 75 | 53 |

| DATE | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 05... | 150 | 2.7 | 4.5 | 420 | 440 | 15 | .8 | 17 | 1060 |
| DEC | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | |
| 25... | 110 | 2.2 | 4.0 | 350 | 310 | 11 | .8 | 18 | 812 |
| MAR | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | |
| 09... | 38 | 1.1 | 1.9 | 210 | 66 | 8.9 | .5 | 18 | 334 |
| JUL | | | | | | | | | |
| 08... | 93 | 2.0 | 4.6 | 310 | 240 | 17 | 1.0 | 17 | 687 |

## 09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) | BORON, DIS-SOLVED (UG/L AS B) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 05... | 1.44 | 11.8 | .33 | .040 | .48 | .52 | .85 | .000 | 170 |
| DEC | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | |
| 25... | 1.10 | 30.3 | 1.1 | .010 | .07 | .08 | 1.2 | .020 | 140 |
| MAR | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | |
| 09... | .45 | 512 | 1.6 | .040 | .96 | 1.0 | 2.6 | .200 | 90 |
| JUL | | | | | | | | | |
| 08... | .93 | 84.4 | .86 | .050 | .47 | .52 | 1.4 | .020 | 140 |

| DATE | IRON, DIS-SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) | CYANIDE TOTAL (MG/L AS CN) | PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M | PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M | CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) | CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) | BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 05... | <10 | -- | 8.7 | .00 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | 14.4 | 14.8 | 1.34 | .000 | 299 |
| JAN | | | | | | | | | |
| 25... | <10 | 4.3 | 4.6 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | |
| 05... | -- | -- | -- | -- | 8.27 | 8.58 | .270 | .000 | 1148 |
| APR | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | |
| 09... | 30 | 14 | 4.3 | .00 | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | |
| 08... | 20 | 12 | 9.5 | -- | -- | -- | -- | -- | -- |

## 09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

| DATE | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, TOTAL RECOVERABLE (UG/L AS BA) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | CHROMIUM, DISSOLVED (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 05... | 50 | 20 | 3 | 4 | 100 | 70 | 0 | <1 | 0 | <1 | 20 | 10 |
| MAY | | | | | | | | | | | | |
| 09... | 4600 | 0 | 7 | 3 | 200 | 300 | 0 | <1 | 0 | <1 | 0 | 0 |

| DATE | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | COPPER, DISSOLVED (UG/L AS CU) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | LEAD, DISSOLVED (UG/L AS PB) | LITHIUM TOTAL RECOVERABLE (UG/L AS LI) | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MERCURY DISSOLVED (UG/L AS HG) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 05... | 0 | <3 | 1 | 1 | 0 | 0 | 40 | 50 | 20 | 1 | .1 | .0 |
| MAY | | | | | | | | | | | | |
| 09... | 2 | <3 | 8 | 2 | 7 | 0 | 20 | 10 | 100 | 6 | .0 | .0 |

| DATE | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SELENIUM, DISSOLVED (UG/L AS SE) | STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 05... | 24 | 24 | 0 | 0 | 3 | 3 | 1500 | 1700 | 3.0 | 0 | 4 |
| MAY | | | | | | | | | | | |
| 09... | 9 | 15 | 8 | 0 | 2 | 2 | 570 | 760 | 7.0 | 40 | 50 |

### SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR | | | | | | | | | | | | |
| 24... | 1400 | 192 | 2720 | 1410 | 22 | 40 | 53 | 3 | 35 | 68 | 99 | 100 |
| MAY | | | | | | | | | | | | |
| 14... | 1600 | 558 | 3160 | 4850 | 18 | 26 | 50 | 7 | 53 | 81 | 100 | -- |
| 30... | 1530 | 225 | 752 | 457 | 27 | 35 | 49 | 69 | 77 | 85 | 99 | 100 |

## 09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1400 | 1340 | 1280 | 1150 | 1170 | 1230 | 1210 | 622 | 670 | 1010 | 1220 | 1440 |
| 2 | 1440 | 1340 | 1280 | 1140 | 1160 | 1220 | 1240 | 621 | 676 | 978 | 1210 | 1410 |
| 3 | 1460 | 1340 | 1290 | 1140 | 1160 | 1220 | 1220 | 613 | 678 | 986 | 1190 | 1410 |
| 4 | 1480 | 1340 | --- | 1140 | 1160 | 1220 | 1220 | 605 | 692 | 1030 | 1180 | 1400 |
| 5 | 1480 | 1320 | --- | 1140 | 1170 | 1210 | 1210 | 594 | 709 | 1020 | 1160 | 1420 |
| 6 | 1460 | 1280 | --- | 1130 | 1180 | 1250 | 1200 | 586 | 706 | 1020 | 1120 | 1420 |
| 7 | 1460 | 1260 | 1290 | 1120 | 1170 | 1340 | 1200 | 570 | 700 | 1030 | 1120 | 1410 |
| 8 | 1440 | 1250 | 1280 | 1110 | 1210 | 1290 | 1200 | 560 | 732 | 1120 | 1160 | 1390 |
| 9 | 1430 | 1250 | 1270 | 1110 | 1240 | 1230 | 1210 | 545 | 765 | 1040 | 1170 | 1400 |
| 10 | 1420 | 1250 | 1260 | 991 | 1210 | 1210 | 1220 | 556 | 795 | 1100 | 1190 | 1430 |
| 11 | 1400 | 1250 | 1250 | 1160 | 1200 | 1210 | 1230 | 545 | 839 | 1080 | 1210 | 1430 |
| 12 | 1380 | 1260 | 1260 | 1210 | 1260 | 1210 | 1210 | 549 | 868 | 1100 | 1290 | 1430 |
| 13 | 1380 | 1260 | 1220 | 1120 | 1290 | 1170 | 1190 | 558 | 858 | 1120 | 1330 | 1450 |
| 14 | 1360 | 1260 | 1260 | 943 | 1100 | 1160 | 1160 | 568 | 877 | 1140 | 1280 | 1440 |
| 15 | 1350 | 1260 | 1240 | 1210 | 911 | 1160 | 1150 | 574 | 892 | 1180 | 1250 | 1430 |
| 16 | 1350 | 1260 | 1230 | 1210 | 1240 | 1160 | 1140 | 575 | 910 | 1170 | 1240 | 1390 |
| 17 | 1350 | 1260 | 1230 | 1200 | 1290 | 1130 | 1130 | 612 | 913 | 1140 | 1270 | 1390 |
| 18 | 1350 | 1260 | 1220 | 1200 | 1220 | 1130 | 1070 | 588 | 903 | 1150 | 1290 | 1390 |
| 19 | 1350 | 1270 | 1210 | 1200 | 1320 | 1130 | 1010 | 570 | 919 | 1160 | 1310 | 1370 |
| 20 | 1350 | 1270 | 1210 | 1200 | 1340 | 1120 | 929 | 547 | 947 | 1160 | 1360 | 1370 |
| 21 | 1350 | 1270 | 1210 | 1200 | 1360 | 1130 | 805 | 509 | 969 | 1170 | 1360 | 1380 |
| 22 | 1350 | 1270 | 1200 | 1200 | 1370 | 1140 | 719 | 549 | 973 | 1190 | 1380 | 1400 |
| 23 | 1350 | 1270 | 1200 | 1200 | 1360 | 1160 | 667 | 481 | 985 | 1190 | 1390 | 1440 |
| 24 | 1350 | 1270 | 1190 | 1210 | 1310 | 1160 | 642 | 432 | 1000 | 1190 | 1410 | 1460 |
| 25 | 1350 | 1270 | 1190 | 1200 | 1270 | 1210 | 694 | 653 | 1010 | 1200 | 1440 | 1450 |
| 26 | 1350 | 1280 | 1180 | 1180 | 1260 | 1240 | 745 | 581 | 1050 | 1210 | 1440 | 1440 |
| 27 | 1350 | 1280 | 1180 | 1170 | 1260 | 1210 | 796 | 616 | 1020 | 1210 | 1420 | 1430 |
| 28 | 1350 | 1280 | 1170 | 1130 | 1260 | 1210 | 711 | 667 | 1030 | 1210 | 1440 | 1410 |
| 29 | 1350 | 1280 | 1170 | 1110 | 1250 | 1200 | 642 | 618 | 1010 | 1190 | 1420 | 1390 |
| 30 | 1350 | 1280 | 1160 | 1140 | --- | 1190 | 630 | 638 | 1010 | 1200 | 1420 | 1380 |
| 31 | 1350 | --- | 1160 | 1170 | --- | 1200 | --- | 655 | --- | 1200 | 1440 | --- |

## 09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | | | --- | --- | --- | --- | 4.0 | 1.5 | 5.0 | .5 | 10.0 | 3.5 |
| 2 | | | --- | --- | --- | --- | 4.0 | 2.0 | 5.0 | 1.0 | 8.0 | 3.0 |
| 3 | | | --- | --- | --- | --- | 4.0 | 3.0 | 6.5 | 3.0 | 7.5 | 4.5 |
| 4 | | | 16.0 | 10.0 | --- | --- | 5.0 | 3.0 | 8.5 | 5.0 | 9.0 | 5.0 |
| 5 | | | 15.5 | 10.0 | --- | --- | 3.5 | 2.5 | 7.0 | 2.0 | 8.0 | 4.0 |
| 6 | | | 15.5 | 9.5 | --- | --- | 4.5 | 1.5 | 7.0 | 3.5 | 6.5 | 5.5 |
| 7 | | | 15.5 | 9.5 | 5.5 | 3.0 | 5.0 | 2.0 | 6.0 | 3.5 | 7.0 | 3.5 |
| 8 | | | --- | --- | 6.5 | 4.5 | 4.5 | 2.5 | 2.5 | .0 | 9.0 | 4.5 |
| 9 | | | --- | --- | 6.0 | 2.5 | 6.0 | 3.5 | 2.5 | .0 | 9.0 | 3.5 |
| 10 | | | --- | --- | 5.5 | 2.0 | 5.5 | 1.5 | 4.5 | .0 | 10.0 | 2.5 |
| 11 | | | --- | --- | 4.5 | .5 | 4.0 | .0 | 5.5 | .0 | 8.0 | 3.5 |
| 12 | | | --- | --- | 1.5 | .0 | 4.0 | 3.0 | 5.5 | .5 | 6.5 | 4.5 |
| 13 | | | --- | --- | 2.5 | .5 | 7.0 | 4.0 | 7.0 | 2.0 | 9.5 | 2.0 |
| 14 | | | --- | --- | 3.0 | .0 | 5.0 | 2.5 | 5.0 | .5 | 12.0 | 3.0 |
| 15 | | | --- | --- | 3.0 | .0 | 7.5 | 5.0 | 4.0 | .5 | 9.5 | 4.0 |
| 16 | | | --- | --- | 4.0 | .0 | 6.5 | 4.5 | 7.5 | 3.5 | 9.0 | 3.5 |
| 17 | | | --- | --- | 4.5 | .5 | 6.5 | 4.5 | 6.5 | 4.5 | 8.5 | .0 |
| 18 | | | --- | --- | 4.5 | 1.0 | 6.5 | 4.5 | 6.0 | 3.5 | 10.0 | 1.5 |
| 19 | | | --- | --- | 4.0 | .5 | 4.5 | 1.0 | 7.5 | 3.5 | 11.5 | 4.0 |
| 20 | | | --- | --- | 4.0 | .5 | 4.5 | .5 | 6.0 | 3.5 | 11.5 | 3.0 |
| 21 | | | --- | --- | 4.5 | 1.5 | 6.0 | 2.0 | 8.0 | 5.0 | 12.5 | 3.5 |
| 22 | | | --- | --- | 5.0 | 4.0 | 4.0 | .5 | 7.5 | 4.0 | 9.5 | 5.5 |
| 23 | | | --- | --- | 6.0 | 3.0 | 4.5 | .5 | 7.5 | 3.5 | 10.5 | 4.5 |
| 24 | | | --- | --- | 4.5 | 1.5 | 5.0 | 1.0 | 8.0 | 2.5 | 12.0 | 4.0 |
| 25 | | | --- | --- | 4.5 | 1.5 | 6.0 | 2.0 | 7.5 | 1.0 | 7.5 | 4.0 |
| 26 | | | --- | --- | 4.5 | 1.5 | 6.0 | 2.5 | 9.0 | 2.5 | 10.5 | 2.5 |
| 27 | | | --- | --- | 3.5 | 2.5 | 6.0 | 2.0 | 10.0 | 3.0 | 10.5 | 2.0 |
| 28 | | | --- | --- | 4.0 | 2.0 | 5.0 | 1.0 | 10.0 | 3.0 | 8.5 | 3.0 |
| 29 | | | --- | --- | 4.0 | 2.0 | 4.5 | 1.5 | 8.5 | 5.0 | 11.5 | 3.5 |
| 30 | | | --- | --- | 4.5 | 1.5 | 5.0 | 1.0 | --- | --- | 9.0 | 3.0 |
| 31 | | | --- | --- | 2.5 | .0 | 3.0 | .5 | --- | --- | 8.5 | 2.5 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 11.5 | 3.0 | 8.5 | 6.5 | 10.5 | 7.5 | 19.5 | 14.0 | 21.5 | 14.0 | 19.0 | 11.0 |
| 2 | 6.5 | 3.5 | 10.0 | 5.5 | 11.0 | 7.5 | 19.0 | 14.0 | 20.0 | 13.5 | 20.0 | 11.5 |
| 3 | 11.0 | 2.5 | 10.0 | 5.5 | 11.5 | 9.0 | 19.5 | 13.5 | 20.5 | 12.5 | 20.0 | 11.5 |
| 4 | 14.5 | 4.0 | 10.0 | 6.5 | 11.5 | 9.0 | 19.5 | 13.0 | 21.0 | 11.5 | 20.5 | 12.5 |
| 5 | 14.0 | 5.0 | 11.0 | 6.5 | 11.5 | 10.0 | 19.0 | 11.5 | 21.0 | 12.0 | 20.5 | 12.5 |
| 6 | 13.0 | 6.0 | 11.5 | 6.5 | 12.5 | 10.0 | 18.5 | 11.0 | 21.5 | 12.0 | 20.5 | 14.0 |
| 7 | 10.5 | 4.5 | 9.5 | 7.5 | 12.0 | 9.5 | 17.0 | 13.0 | 22.0 | 12.5 | 20.5 | 15.0 |
| 8 | 12.5 | 2.0 | 11.0 | 7.0 | 12.5 | 10.5 | 20.0 | 13.0 | 22.0 | 12.5 | 17.5 | 15.0 |
| 9 | 15.0 | 3.5 | 8.5 | 6.5 | 14.0 | 10.5 | 21.5 | 12.0 | 22.0 | 13.5 | 16.5 | 14.5 |
| 10 | 12.5 | 5.5 | 10.0 | 7.0 | 14.0 | 10.5 | 20.0 | 13.0 | 21.5 | 13.0 | 16.5 | 14.5 |
| 11 | 8.0 | 4.0 | 9.0 | 7.0 | 14.0 | 11.0 | 21.5 | 13.5 | 21.5 | 11.5 | 18.0 | 11.5 |
| 12 | 11.5 | 2.5 | 6.5 | 3.5 | 13.5 | 11.0 | 21.5 | 13.0 | 22.0 | 11.5 | 17.0 | 13.0 |
| 13 | 13.5 | 2.5 | 10.5 | 5.0 | 13.5 | 10.5 | 19.5 | 14.0 | 23.5 | 14.0 | 18.5 | 11.5 |
| 14 | 15.5 | 3.0 | 10.0 | 5.0 | 14.0 | 10.5 | 21.5 | 12.0 | 22.0 | 15.0 | 18.0 | 11.0 |
| 15 | 16.0 | 5.0 | 11.0 | 5.5 | 14.0 | 10.0 | 21.5 | 11.5 | 21.5 | 15.5 | 18.0 | 11.0 |
| 16 | 16.0 | 5.0 | 11.0 | 6.5 | 14.5 | 10.0 | 22.0 | 11.5 | 20.5 | 13.0 | 18.0 | 12.5 |
| 17 | 17.0 | 4.5 | 9.5 | 4.5 | 15.0 | 10.0 | 22.0 | 12.0 | 21.5 | 12.0 | 17.0 | 10.5 |
| 18 | 17.0 | 5.0 | 11.5 | 4.5 | 17.5 | 10.5 | 22.0 | 12.5 | 21.0 | 12.0 | 17.5 | 10.5 |
| 19 | 16.5 | 5.5 | 11.0 | 6.0 | 16.0 | 10.5 | 22.0 | 13.5 | 19.5 | 12.0 | 17.5 | 12.5 |
| 20 | 15.5 | 5.5 | 13.5 | 7.0 | 18.0 | 10.5 | 21.5 | 12.5 | 20.0 | 10.5 | 17.0 | 12.0 |
| 21 | 13.5 | 5.5 | 14.5 | 7.5 | 18.0 | 10.5 | 23.0 | 12.0 | 21.0 | 10.5 | 16.0 | 10.0 |
| 22 | 11.0 | 6.0 | 14.5 | 7.5 | 18.0 | 10.5 | 23.0 | 12.5 | 21.5 | 11.0 | 16.0 | 10.0 |
| 23 | 11.5 | 5.5 | 12.5 | 8.5 | 17.0 | 10.5 | 20.5 | 13.5 | 18.0 | 14.0 | 15.5 | 9.0 |
| 24 | 9.0 | 5.5 | 11.0 | 7.5 | 17.5 | 10.5 | 21.5 | 12.5 | 18.0 | 14.5 | 15.5 | 9.5 |
| 25 | 11.0 | 4.0 | 8.5 | 4.0 | 18.0 | 10.5 | 21.5 | 12.5 | 19.0 | 13.0 | 16.5 | 9.5 |
| 26 | 11.0 | 3.5 | 9.5 | 4.5 | 18.0 | 11.0 | 21.5 | 12.0 | 19.0 | 12.0 | 17.0 | 9.0 |
| 27 | 12.0 | 3.5 | 10.5 | 6.5 | 18.0 | 11.5 | 23.0 | 12.5 | 20.0 | 12.0 | 17.0 | 9.5 |
| 28 | 12.5 | 4.5 | 11.0 | 7.5 | 18.0 | 10.5 | 22.0 | 12.5 | 20.0 | 12.5 | 17.5 | 10.0 |
| 29 | 10.5 | 6.0 | 11.0 | 8.5 | 18.5 | 11.0 | 20.5 | 12.0 | 18.0 | 13.5 | 17.5 | 10.0 |
| 30 | 10.0 | 6.0 | 10.5 | 7.0 | 19.0 | 13.5 | 21.5 | 14.0 | 18.0 | 11.5 | 17.0 | 9.5 |
| 31 | --- | --- | 10.5 | 7.0 | --- | --- | 22.0 | 13.0 | 17.5 | 11.5 | --- | --- |

### 09093500 PARACHUTE CREEK AT PARACHUTE. CO--Continued

### SEDIMENT DISCHARGE. SUSPENDED (TONS/DAY). WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | |
| 1 | 4.8 | 14 | .18 | 14 | 26 | .98 | 13 | 46 | 1.6 |
| 2 | 4.8 | 6 | .08 | 14 | 30 | 1.1 | 13 | 20 | .70 |
| 3 | 4.4 | 7 | .08 | 13 | 21 | .74 | 14 | 22 | .83 |
| 4 | 3.4 | 8 | .07 | 13 | 29 | 1.0 | 14 | 27 | 1.0 |
| 5 | 4.1 | 12 | .13 | 13 | 34 | 1.2 | 14 | 30 | 1.1 |
| 6 | 4.4 | 12 | .14 | 13 | 21 | .74 | 14 | 32 | 1.2 |
| 7 | 4.4 | 11 | .13 | 13 | 33 | 1.2 | 13 | 27 | .95 |
| 8 | 4.6 | 11 | .14 | 14 | 137 | 5.2 | 13 | 18 | .63 |
| 9 | 4.8 | 19 | .25 | 14 | 45 | 1.7 | 13 | 18 | .63 |
| 10 | 5.0 | 17 | .23 | 13 | 20 | .70 | 13 | 17 | .60 |
| 11 | 5.3 | 13 | .19 | 13 | 19 | .67 | 13 | 17 | .60 |
| 12 | 5.5 | 45 | .67 | 12 | 25 | .81 | 13 | 46 | 1.6 |
| 13 | 5.7 | 21 | .32 | 12 | 15 | .49 | 13 | 23 | .81 |
| 14 | 6.0 | 32 | .52 | 12 | 17 | .55 | 13 | 15 | .53 |
| 15 | 6.0 | 9 | .15 | 12 | 18 | .58 | 13 | 26 | .91 |
| 16 | 6.7 | 9 | .16 | 14 | 18 | .68 | 13 | 26 | .91 |
| 17 | 7.6 | 13 | .27 | 14 | 16 | .60 | 13 | 25 | .88 |
| 18 | 8.4 | 73 | 1.6 | 14 | 26 | .98 | 13 | 32 | 1.1 |
| 19 | 9.8 | 89 | 2.2 | 14 | 19 | .72 | 14 | 29 | 1.1 |
| 20 | 13 | 9070 | 465 | 16 | 9 | .39 | 14 | 25 | .94 |
| 21 | 12 | 236 | 7.3 | 15 | 20 | .81 | 15 | 29 | 1.2 |
| 22 | 13 | 118 | 4.1 | 15 | 18 | .73 | 15 | 34 | 1.4 |
| 23 | 13 | 122 | 4.3 | 15 | 21 | .85 | 15 | 29 | 1.2 |
| 24 | 13 | 260 | 9.1 | 15 | 24 | .97 | 15 | 28 | 1.1 |
| 25 | 13 | 206 | 7.2 | 15 | 27 | 1.1 | 15 | 18 | .73 |
| 26 | 13 | 47 | 1.6 | 15 | 21 | .85 | 15 | 23 | .93 |
| 27 | 13 | 36 | 1.3 | 15 | 38 | 1.5 | 15 | 21 | .85 |
| 28 | 13 | 42 | 1.5 | 15 | 37 | 1.5 | 15 | 37 | 1.5 |
| 29 | 13 | 33 | 1.2 | 15 | 67 | 2.7 | 15 | 29 | 1.2 |
| 30 | 13 | 38 | 1.3 | 14 | 67 | 2.5 | 15 | 22 | .89 |
| 31 | 14 | 52 | 2.0 | --- | --- | --- | 15 | 22 | .69 |

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCENTRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | JANUARY | | | FEBRUARY | | | MARCH | |
| 1 | 15 | 16 | .65 | 13 | 413 | 4.0 | 18 | 180 | 8.8 |
| 2 | 15 | 16 | .65 | 13 | 78 | 2.7 | 18 | 155 | 7.5 |
| 3 | 14 | 19 | .72 | 13 | 41 | 1.4 | 18 | 175 | 8.5 |
| 4 | 14 | 19 | .72 | 12 | 1620 | 57 | 19 | 210 | 11 |
| 5 | 14 | 14 | .53 | 13 | 177 | 6.2 | 19 | 160 | 8.2 |
| 6 | 14 | 14 | .53 | 13 | 75 | 2.6 | 19 | 1080 | 72 |
| 7 | 14 | 10 | .38 | 14 | 52 | 2.0 | 21 | 1510 | 102 |
| 8 | 14 | 10 | .38 | 14 | 79 | 3.0 | 19 | 395 | 20 |
| 9 | 14 | 13 | .49 | 14 | --- | 3.0 | 18 | 262 | 13 |
| 10 | 29 | 10100 | 1260 | 14 | 71 | 2.7 | 18 | 225 | 11 |
| 11 | 15 | 200 | 8.1 | 14 | 31 | 1.2 | 18 | 205 | 10 |
| 12 | 14 | 150 | 5.7 | 13 | 37 | 1.3 | 18 | 275 | 13 |
| 13 | 20 | 734 | 51 | 13 | 77 | 2.7 | 18 | 185 | 9.0 |
| 14 | 35 | 4720 | 710 | 32 | 15800 | 2970 | 18 | 154 | 7.5 |
| 15 | 16 | 239 | 10 | 50 | 20500 | 4600 | 18 | 162 | 7.9 |
| 16 | 14 | 118 | 4.5 | 21 | 2250 | 143 | 18 | 160 | 7.8 |
| 17 | 14 | 83 | 3.1 | 17 | 175 | 8.0 | 17 | 136 | 6.2 |
| 18 | 14 | 41 | 1.6 | 39 | 19500 | 1720 | 18 | 239 | 12 |
| 19 | 14 | 31 | 1.2 | 26 | 2920 | 248 | 18 | 163 | 7.9 |
| 20 | 14 | 19 | .72 | 30 | 8680 | 1260 | 17 | 170 | 7.8 |
| 21 | 14 | 36 | 1.4 | 20 | 994 | 64 | 18 | 172 | 8.4 |
| 22 | 14 | 36 | 1.4 | 22 | 3540 | 263 | 18 | 205 | 10 |
| 23 | 14 | 37 | 1.4 | 21 | 5100 | 423 | 18 | 165 | 8.0 |
| 24 | 14 | 59 | 2.2 | 18 | 430 | 21 | 18 | 141 | 6.8 |
| 25 | 13 | 36 | 1.3 | 18 | 300 | 15 | 19 | 299 | 15 |
| 26 | 13 | 27 | .95 | 17 | 240 | 11 | 19 | 200 | 10 |
| 27 | 13 | 31 | 1.1 | 18 | 230 | 11 | 19 | 265 | 14 |
| 28 | 13 | 32 | 1.1 | 18 | 270 | 13 | 19 | 200 | 10 |
| 29 | 14 | 35 | 1.3 | 18 | 215 | 10 | 19 | 148 | 7.6 |
| 30 | 14 | 153 | 5.8 | --- | --- | --- | 19 | 145 | 7.4 |
| 31 | 14 | 177 | 6.7 | --- | --- | --- | 19 | 283 | 14 |

### 09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

### SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | APRIL | | | MAY | | | JUNE | |
| 1 | 19 | 274 | 14 | 402 | 3450 | 4040 | 194 | 450 | 236 |
| 2 | 19 | 353 | 19 | 409 | 2400 | 2830 | 172 | 599 | 278 |
| 3 | 19 | 295 | 15 | 409 | 2330 | 2630 | 158 | 470 | 200 |
| 4 | 20 | 244 | 12 | 391 | 2250 | 2380 | 155 | 580 | 243 |
| 5 | 20 | 245 | 12 | 412 | 2220 | 2470 | 150 | 520 | 211 |
| 6 | 20 | 250 | 14 | 426 | 2450 | 2820 | 149 | 610 | 245 |
| 7 | 20 | 195 | 10 | 461 | 2800 | 3520 | 140 | 570 | 215 |
| 8 | 20 | 200 | 11 | 489 | 2990 | 3950 | 137 | 400 | 148 |
| 9 | 20 | 190 | 10 | 545 | 3250 | 4430 | 116 | 390 | 122 |
| 10 | 20 | 175 | 9.4 | 579 | 3020 | 4720 | 107 | 370 | 107 |
| 11 | 19 | 180 | 9.2 | 623 | 3040 | 5220 | 108 | 440 | 128 |
| 12 | 20 | 180 | 9.7 | 688 | 3560 | 6790 | 108 | 330 | 96 |
| 13 | 20 | 260 | 14 | 606 | 2960 | 5120 | 97 | 340 | 89 |
| 14 | 20 | 232 | 12 | 500 | 2520 | 3950 | 83 | 370 | 83 |
| 15 | 20 | 312 | 17 | 507 | 2150 | 3300 | 75 | 290 | 59 |
| 16 | 21 | 218 | 12 | 506 | 1980 | 3000 | 74 | 415 | 83 |
| 17 | 22 | 218 | 13 | 561 | 2970 | 4950 | 73 | 210 | 41 |
| 18 | 22 | 325 | 19 | 507 | 1850 | 2530 | 69 | 199 | 37 |
| 19 | 30 | 1420 | 153 | 451 | 1550 | 1880 | 65 | 195 | 34 |
| 20 | 38 | 2140 | 361 | 438 | 1550 | 1830 | 64 | 205 | 35 |
| 21 | 61 | 4520 | 1200 | 473 | 2100 | 2680 | 62 | 199 | 33 |
| 22 | 98 | 3640 | 1320 | 512 | 2050 | 2830 | 61 | 245 | 40 |
| 23 | 154 | 2910 | 1230 | 485 | 2050 | 2680 | 58 | 4850 | 828 |
| 24 | 194 | 2590 | 1440 | 446 | 1850 | 2230 | 54 | 210 | 31 |
| 25 | 225 | 2430 | 1560 | 387 | 1750 | 1830 | 51 | 190 | 26 |
| 26 | 243 | 2290 | 1610 | 317 | 1550 | 1330 | 49 | 215 | 28 |
| 27 | 258 | 2290 | 1730 | 298 | 1150 | 925 | 49 | 207 | 27 |
| 28 | 276 | 2230 | 1830 | 238 | 1000 | 643 | 45 | 289 | 35 |
| 29 | 304 | 2680 | 2490 | 227 | 1000 | 613 | 45 | 230 | 28 |
| 30 | 374 | 3880 | 4270 | 217 | 750 | 439 | 45 | 158 | 19 |
| 31 | --- | --- | --- | 200 | 600 | 324 | --- | --- | --- |

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 44 | 185 | 22 | 19 | 33 | 1.7 | 12 | 51 | 1.6 |
| 2 | 43 | 86 | 10 | 19 | 31 | 1.6 | 12 | 42 | 1.4 |
| 3 | 44 | 106 | 13 | 19 | 32 | 1.6 | 12 | 47 | 1.5 |
| 4 | 47 | 48 | 6.1 | 18 | 29 | 1.4 | 12 | 40 | 1.3 |
| 5 | 45 | 56 | 6.8 | 18 | 20 | .97 | 11 | 38 | 1.1 |
| 6 | 46 | 83 | 10 | 18 | 22 | 1.1 | 11 | 27 | .80 |
| 7 | 46 | 58 | 7.2 | 18 | 16 | .78 | 12 | 49 | 1.6 |
| 8 | 44 | 93 | 11 | 18 | 19 | .92 | 11 | 47 | 1.4 |
| 9 | 40 | 97 | 10 | 19 | 14 | .72 | 12 | 45 | 1.5 |
| 10 | 37 | 100 | 10 | 18 | 14 | .68 | 11 | 39 | 1.2 |
| 11 | 36 | 104 | 10 | 17 | 34 | 1.4 | 11 | 32 | .95 |
| 12 | 35 | 82 | 7.8 | 13 | 47 | 1.4 | 11 | 19 | .56 |
| 13 | 34 | 79 | 7.2 | 11 | 32 | .82 | 12 | 33 | 1.1 |
| 14 | 34 | 64 | 5.9 | 11 | 36 | .92 | 13 | 18 | .63 |
| 15 | 33 | 46 | 4.1 | 13 | 52 | 1.7 | 14 | 26 | .98 |
| 16 | 29 | 39 | 3.0 | 15 | 22 | .79 | 17 | 51 | 2.3 |
| 17 | 28 | 39 | 3.0 | 14 | 21 | .79 | 15 | 30 | 1.2 |
| 18 | 27 | 43 | 3.1 | 13 | 21 | .74 | 13 | 28 | .98 |
| 19 | 26 | 74 | 5.2 | 13 | 16 | .56 | 14 | 40 | 1.5 |
| 20 | 24 | 50 | 3.2 | 12 | 16 | .52 | 11 | 31 | .92 |
| 21 | 24 | 48 | 3.1 | 12 | 26 | .84 | 11 | 19 | .56 |
| 22 | 22 | 38 | 2.3 | 12 | 57 | 1.8 | 9.5 | 26 | .67 |
| 23 | 21 | 47 | 2.7 | 12 | 58 | 1.9 | 7.0 | 47 | .89 |
| 24 | 21 | 58 | 3.3 | 11 | 63 | 1.9 | 9.2 | 36 | .89 |
| 25 | 21 | 38 | 2.2 | 12 | 60 | 1.9 | 8.8 | 31 | .74 |
| 26 | 21 | 33 | 1.9 | 12 | 48 | 1.6 | 8.4 | 39 | .88 |
| 27 | 20 | 40 | 2.2 | 12 | 44 | 1.4 | 8.7 | 28 | .66 |
| 28 | 20 | 39 | 2.1 | 13 | 60 | 2.1 | 8.7 | 25 | .59 |
| 29 | 21 | 33 | 1.9 | 13 | 51 | 1.8 | 8.9 | 24 | .58 |
| 30 | 20 | 36 | 1.9 | 13 | 45 | 1.6 | 9.1 | 23 | .57 |
| 31 | 19 | 18 | .92 | 12 | 37 | 1.2 | --- | --- | --- |
| TOTAL | 972 | --- | 183.12 | 450 | --- | 39.15 | 336.3 | --- | 31.55 |
| YEAR | 23611.0 | | 127345.30 | | | | | | |

## 09093700 COLORADO RIVER NEAR DE BEQUE, CO

LOCATION.--Lat 39°21'45", long 108°09'07", in NE¼SW¼ sec.7, T.8 S., R.96 W., Mesa County, Hydrologic Unit 14010006, on left bank 3.0 mi (4.8 km) downstream from Alkali Creek and 3.8 mi (6.1 km) northeast of De Beque.

DRAINAGE AREA.--7,370 mi² (19,088 km²).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,940 ft (1,506 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of about 158,000 acres (639 km²).

AVERAGE DISCHARGE.--14 years, 3,605 ft³/s (102 m³/s), 2,612,000 acre-ft/yr (3,220 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,500 ft³/s (637 m³/s) June 15, 1973, gage height, 11.07 ft (3.374 m); minimum daily, 914 ft³/s (25.9 m³/s) Dec. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,700 ft³/s (558 m³/s) at 1700 June 12, gage height, 10.55 ft (3.216 m); minimum daily, 1,390 ft³/s (39.4 m³/s) Dec. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1850 | 2080 | 1430 | 1570 | 1470 | 1720 | 1910 | 6480 | 12800 | 9380 | 2610 | 2090 |
| 2 | 1830 | 2000 | 1470 | 1680 | 1560 | 1700 | 1820 | 6240 | 12700 | 9580 | 2570 | 2060 |
| 3 | 1790 | 2000 | 1680 | 1740 | 1720 | 1740 | 1880 | 6170 | 12600 | 9690 | 2530 | 1950 |
| 4 | 1790 | 1920 | 1860 | 1700 | 1740 | 1770 | 1810 | 6290 | 13200 | 9220 | 2470 | 1890 |
| 5 | 1800 | 1930 | 1970 | 1700 | 1720 | 1760 | 1830 | 6670 | 14400 | 8420 | 2360 | 2000 |
| 6 | 1810 | 1990 | 1950 | 1690 | 1670 | 1870 | 1880 | 7270 | 15800 | 7580 | 2330 | 2030 |
| 7 | 1830 | 1950 | 1920 | 1720 | 1690 | 1850 | 1910 | 8210 | 16300 | 6890 | 2270 | 1990 |
| 8 | 1830 | 2000 | 1880 | 1680 | 1660 | 1780 | 1880 | 9040 | 16100 | 6650 | 2200 | 1870 |
| 9 | 1870 | 2010 | 1940 | 1610 | 1550 | 1720 | 1810 | 9550 | 16300 | 6600 | 2200 | 1850 |
| 10 | 1870 | 1990 | 1830 | 1760 | 1460 | 1700 | 1830 | 9500 | 17200 | 6310 | 2160 | 2060 |
| 11 | 1860 | 1970 | 1810 | 1720 | 1410 | 1710 | 1910 | 9250 | 18600 | 5950 | 2040 | 2250 |
| 12 | 1870 | 1940 | 1800 | 1620 | 1550 | 1710 | 1890 | 9830 | 19200 | 5710 | 2000 | 2340 |
| 13 | 1910 | 1910 | 1510 | 1720 | 1640 | 1640 | 1850 | 9360 | 19200 | 5860 | 1980 | 2300 |
| 14 | 1930 | 1880 | 1390 | 1930 | 1980 | 1670 | 1880 | 8570 | 18400 | 5690 | 2000 | 2250 |
| 15 | 1920 | 1860 | 1430 | 1990 | 2250 | 1720 | 1940 | 7900 | 17200 | 5230 | 2250 | 2150 |
| 16 | 1930 | 1810 | 1570 | 1880 | 2040 | 1730 | 2080 | 7580 | 15900 | 4820 | 2580 | 2030 |
| 17 | 1940 | 1860 | 1760 | 1800 | 1860 | 1630 | 2220 | 8440 | 15000 | 4450 | 2640 | 1950 |
| 18 | 1940 | 1910 | 1810 | 1770 | 2290 | 1640 | 2270 | 8620 | 14600 | 4140 | 2480 | 2030 |
| 19 | 1850 | 1980 | 1720 | 1760 | 2200 | 1690 | 2480 | 8420 | 14600 | 3940 | 2330 | 1950 |
| 20 | 1850 | 1990 | 1640 | 1710 | 1970 | 1730 | 2820 | 8260 | 14300 | 3790 | 2180 | 1970 |
| 21 | 1950 | 1950 | 1660 | 1680 | 1930 | 1770 | 3210 | 9120 | 13700 | 3620 | 2060 | 2000 |
| 22 | 2120 | 1860 | 1740 | 1630 | 1890 | 1800 | 3710 | 10800 | 13300 | 3430 | 2030 | 1980 |
| 23 | 2130 | 1720 | 1820 | 1570 | 1630 | 1860 | 4320 | 13100 | 12700 | 3320 | 2060 | 1970 |
| 24 | 2160 | 1690 | 1810 | 1480 | 1730 | 1810 | 4670 | 15100 | 12600 | 3200 | 2180 | 2000 |
| 25 | 2160 | 1810 | 1710 | 1520 | 1660 | 1860 | 4560 | 14800 | 12400 | 3120 | 2260 | 1980 |
| 26 | 2200 | 2000 | 1700 | 1660 | 1690 | 1870 | 4650 | 13500 | 12000 | 3150 | 2340 | 1920 |
| 27 | 2160 | 1940 | 1690 | 1690 | 1720 | 1830 | 4820 | 12600 | 12000 | 3050 | 2430 | 1890 |
| 28 | 2130 | 1740 | 1740 | 1710 | 1740 | 1830 | 5040 | 12300 | 11400 | 2910 | 2340 | 1890 |
| 29 | 2160 | 1570 | 1710 | 1730 | 1770 | 1820 | 5420 | 12600 | 10200 | 2800 | 2230 | 1880 |
| 30 | 2150 | 1470 | 1630 | 1670 | --- | 1830 | 6070 | 12500 | 9380 | 2720 | 2160 | 1810 |
| 31 | 2120 | --- | 1470 | 1600 | --- | 1860 | --- | 12400 | --- | 2670 | 2050 | --- |
| TOTAL | 60710 | 56730 | 53050 | 52690 | 51390 | 54620 | 86370 | 300470 | 434080 | 163890 | 70320 | 60330 |
| MEAN | 1958 | 1891 | 1711 | 1700 | 1772 | 1762 | 2879 | 9693 | 14470 | 5287 | 2268 | 2011 |
| MAX | 2200 | 2080 | 1970 | 1990 | 2290 | 1870 | 6070 | 15100 | 19200 | 9690 | 2640 | 2340 |
| MIN | 1790 | 1470 | 1390 | 1480 | 1410 | 1630 | 1810 | 6170 | 9380 | 2670 | 1980 | 1810 |
| AC-FT | 120400 | 112500 | 105200 | 104500 | 101900 | 108300 | 171300 | 596000 | 861000 | 325100 | 139500 | 119700 |

CAL YR 1979 TOTAL 1555190 MEAN 4261 MAX 20700 MIN 1080 AC-FT 3085000
WTR YR 1980 TOTAL 1444650 MEAN 3947 MAX 19200 MIN 1390 AC-FT 2865000

## 09093700 COLORADO RIVER NEAR DE BEQUE, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to current year.
WATER TEMPERATURE: August 1973 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,600 micromhos Nov. 9, 10, 1977; minimum daily, 260 micromhos May 29, 1979.
WATER TEMPERATURES: Maximum daily, 25.0°C July 1-4, 18-20, 1977; minimum daily, freezing point on many days during winter months each year.
SEDIMENT CONCENTRATIONS: Maximum daily, 2,090 mg/L Mar. 9, 1975; minimum daily, 2 mg/L Dec. 7, 17, 1975, Feb. 22, 1976.
SEDIMENT LOADS: Maximum daily, 41,300 tons (37,500 t) May 17, 1975; minimum daily, 8.4 tons (7.6 t) Feb. 22, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily observed, 1,480 micromhos Feb. 1; minimum daily observed, 280 micromhos June 12, 13.
WATER TEMPERATURES: Maximum daily observed, 22.0°C several days in July; minimum daily, 0.0°C several days during January.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | |
| 12... | 1330 | 1690 | 975 | 8.1 | 13.5 | 8.8 | 240 | 110 |
| NOV | | | | | | | | |
| 13... | 1500 | 1910 | 1000 | 8.2 | 5.0 | 11.5 | -- | -- |
| DEC | | | | | | | | |
| 10... | 1000 | 1870 | 1000 | 8.4 | 1.5 | 12.2 | -- | -- |
| FEB | | | | | | | | |
| 01... | 1130 | 1390 | 1060 | 7.9 | .0 | 11.1 | 220 | 94 |
| MAR | | | | | | | | |
| 21... | 1245 | 1810 | 1070 | 7.6 | 9.0 | 10.2 | 250 | -- |
| MAY | | | | | | | | |
| 02... | 1300 | 6160 | 510 | 7.5 | 11.0 | -- | 160 | 52 |
| JUN | | | | | | | | |
| 06... | 1130 | 16500 | 290 | 7.2 | 12.0 | 8.4 | 110 | 26 |
| 20... | 1200 | 15200 | 290 | 7.2 | 14.0 | 8.2 | 98 | 20 |
| JUL | | | | | | | | |
| 18... | 1230 | 4250 | 610 | 7.7 | 19.5 | 8.6 | 180 | 180 |
| SEP | | | | | | | | |
| 15... | 1230 | 2390 | 950 | 7.9 | 17.0 | 8.4 | 240 | 110 |

## 09093700 COLORADO RIVER NEAR DE BECUE, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM AD-SORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 12... | 68 | 16 | 110 | 3.1 | 4.2 | 130 | 130 | 160 | .8 |
| NOV | | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | |
| 01... | 65 | 15 | 120 | 3.5 | 3.7 | 130 | 130 | 170 | .2 |
| MAR | | | | | | | | | |
| 21... | 70 | 18 | 140 | 3.9 | 4.6 | -- | 160 | 190 | .3 |
| MAY | | | | | | | | | |
| 02... | 45 | 12 | 43 | 1.5 | 2.6 | 110 | 65 | 45 | .3 |
| JUN | | | | | | | | | |
| 06... | 33 | 6.4 | 19 | .8 | 1.3 | 83 | 35 | 22 | .2 |
| 20... | 29 | 6.1 | 19 | .8 | 1.4 | 78 | 35 | 25 | .1 |
| JUL | | | | | | | | | |
| 18... | 53 | 11 | 58 | 1.9 | 2.6 | 0 | -- | -- | -- |
| SEP | | | | | | | | | |
| 15... | 71 | 16 | 110 | 3.1 | 4.4 | 130 | 130 | 160 | .3 |

| DATE | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | IRON, DISSOLVED (UG/L AS FE) | MANGANESE, DISSOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | |
| 12... | 7.6 | 575 | .78 | 2620 | .06 | .000 | <10 | 5 |
| NOV | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | |
| 01... | 7.3 | 590 | .80 | 2210 | .17 | .000 | 30 | 20 |
| MAR | | | | | | | | |
| 21... | 6.1 | 589 | .80 | 2880 | .08 | .010 | 30 | 20 |
| MAY | | | | | | | | |
| 02... | 10 | 291 | .40 | 4840 | .47 | .040 | 50 | 10 |
| JUN | | | | | | | | |
| 06... | 6.9 | 175 | .24 | 7800 | .28 | .010 | 40 | 8 |
| 20... | 6.6 | 170 | .23 | 6980 | .14 | .010 | 50 | 7 |
| JUL | | | | | | | | |
| 18... | 7.0 | -- | -- | -- | .00 | .010 | <10 | <1 |
| SEP | | | | | | | | |
| 15... | 8.2 | 578 | .79 | 3670 | .00 | .020 | 20 | 8 |

### 09093700 COLORADO RIVER NEAR DE BEGUE, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | 1000 | 1200 | --- | --- | 580 | 380 | 440 | 1000 | 1100 |
| 2 | --- | --- | --- | 1000 | 1100 | --- | --- | 580 | 380 | 440 | --- | --- |
| 3 | --- | --- | --- | 1000 | 1100 | --- | --- | 580 | 380 | 460 | --- | --- |
| 4 | --- | --- | --- | 1000 | 1100 | --- | --- | 550 | 380 | 460 | --- | --- |
| 5 | --- | --- | --- | 1000 | 1100 | --- | --- | 550 | 360 | 480 | --- | --- |
| 6 | --- | --- | --- | 1000 | 1100 | --- | --- | 550 | 320 | 520 | --- | --- |
| 7 | --- | --- | --- | 1000 | 1100 | --- | --- | 550 | 320 | 520 | --- | --- |
| 8 | --- | --- | --- | 1000 | 1100 | --- | --- | 540 | 320 | 560 | --- | --- |
| 9 | --- | --- | --- | 1000 | 1100 | --- | --- | 500 | 320 | 500 | --- | --- |
| 10 | --- | --- | 1000 | 1000 | 1100 | --- | --- | 500 | 320 | 560 | --- | --- |
| 11 | --- | --- | --- | 1100 | 1100 | --- | --- | 480 | 320 | 560 | --- | --- |
| 12 | 975 | --- | --- | 1100 | 1100 | --- | --- | 480 | 280 | 580 | --- | --- |
| 13 | --- | 1000 | --- | 1100 | 1100 | --- | --- | 450 | 280 | 600 | --- | --- |
| 14 | --- | --- | --- | 1100 | 1100 | --- | --- | --- | 300 | 640 | --- | --- |
| 15 | --- | --- | --- | 1100 | 1200 | --- | --- | --- | 340 | 660 | --- | 950 |
| 16 | --- | --- | --- | 1200 | 1200 | --- | 1000 | --- | --- | 700 | --- | --- |
| 17 | --- | --- | --- | 1200 | 1200 | 1200 | 1000 | --- | --- | 700 | --- | --- |
| 18 | --- | --- | --- | 1200 | 1250 | 1200 | 900 | --- | --- | 700 | --- | --- |
| 19 | --- | --- | --- | 1200 | 1250 | 1200 | 900 | --- | 340 | 700 | --- | --- |
| 20 | --- | --- | --- | 1150 | 1250 | 1200 | 800 | --- | 340 | 750 | --- | --- |
| 21 | --- | --- | --- | 1200 | 1250 | 1150 | 800 | --- | 340 | 750 | --- | --- |
| 22 | --- | --- | --- | 1200 | 1250 | 1150 | --- | --- | 340 | 800 | --- | --- |
| 23 | --- | --- | --- | 1200 | 1300 | 1150 | --- | --- | 360 | 800 | --- | --- |
| 24 | --- | --- | --- | 1200 | 1300 | 1150 | --- | --- | 360 | 850 | --- | --- |
| 25 | --- | --- | --- | 1250 | 1200 | 1100 | --- | --- | 380 | 850 | --- | --- |
| 26 | --- | --- | --- | 1250 | 1200 | 1100 | --- | --- | 380 | 800 | --- | --- |
| 27 | --- | --- | --- | 1200 | 1200 | 1100 | --- | --- | 400 | 800 | --- | --- |
| 28 | --- | --- | --- | 1200 | 1200 | 1100 | --- | --- | 400 | 800 | --- | --- |
| 29 | --- | --- | --- | 1200 | 1200 | 1100 | --- | --- | 420 | 800 | --- | --- |
| 30 | --- | --- | --- | 1200 | --- | 1100 | --- | --- | 440 | 900 | --- | --- |
| 31 | --- | --- | --- | 1200 | --- | 1100 | --- | --- | --- | 950 | --- | --- |

## 09093700 COLORADO RIVER NEAR DE BEQUE, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | .0 | 2.0 | --- | --- | 12.0 | 13.0 | 18.0 | 22.0 | 22.0 |
| 2 | --- | --- | --- | .0 | 2.0 | --- | --- | 12.0 | 13.0 | 17.0 | --- | --- |
| 3 | --- | --- | --- | .0 | 2.0 | --- | --- | 12.0 | 13.0 | 18.0 | --- | --- |
| 4 | --- | --- | --- | .0 | 2.0 | --- | --- | 12.0 | 13.0 | 18.0 | --- | --- |
| 5 | --- | --- | --- | .0 | 2.0 | --- | --- | 10.0 | 13.0 | 18.0 | --- | --- |
| 6 | --- | --- | --- | .0 | 2.0 | --- | --- | 12.0 | 13.0 | 18.0 | --- | --- |
| 7 | --- | --- | --- | .0 | 2.0 | --- | --- | 12.0 | 12.0 | 18.0 | --- | --- |
| 8 | --- | --- | --- | 1.0 | 2.0 | --- | --- | 12.0 | 12.0 | 18.0 | --- | --- |
| 9 | --- | --- | --- | 1.0 | 2.0 | --- | --- | 12.0 | 12.0 | 20.0 | --- | --- |
| 10 | --- | --- | 1.5 | 1.0 | 2.0 | --- | --- | 12.0 | 12.0 | 19.0 | --- | --- |
| 11 | --- | --- | --- | 1.0 | 2.0 | --- | --- | 12.0 | 12.0 | 19.0 | --- | --- |
| 12 | 13.5 | --- | --- | 1.0 | 2.0 | --- | --- | 10.0 | 14.0 | 20.0 | --- | --- |
| 13 | --- | 5.0 | --- | 1.0 | 2.0 | --- | --- | 10.0 | 14.0 | 20.0 | --- | --- |
| 14 | --- | --- | --- | 2.0 | 3.0 | --- | --- | --- | 13.0 | 20.0 | --- | --- |
| 15 | --- | --- | --- | 2.0 | 3.0 | --- | --- | --- | 14.0 | 20.0 | --- | 17.0 |
| 16 | --- | --- | --- | 2.0 | 3.0 | --- | 13.0 | --- | --- | 21.0 | --- | --- |
| 17 | --- | --- | --- | 2.0 | 3.0 | 7.0 | 13.0 | --- | --- | 19.0 | --- | --- |
| 18 | --- | --- | --- | 2.0 | 3.0 | 7.0 | 13.0 | --- | --- | 21.0 | --- | --- |
| 19 | --- | --- | --- | 2.0 | 3.0 | 9.0 | 13.0 | --- | 15.0 | 21.0 | --- | --- |
| 20 | --- | --- | --- | 2.0 | 3.0 | 9.0 | 13.0 | --- | 15.0 | 22.0 | --- | --- |
| 21 | --- | --- | --- | 2.0 | 3.0 | 9.0 | 13.0 | --- | 15.0 | 22.0 | --- | --- |
| 22 | --- | --- | --- | 2.0 | 3.0 | 9.0 | --- | --- | 15.0 | 22.0 | --- | --- |
| 23 | --- | --- | --- | 2.0 | 3.0 | 9.0 | --- | --- | 15.0 | 22.0 | --- | --- |
| 24 | --- | --- | --- | 2.0 | 3.0 | 9.0 | --- | --- | 15.0 | 22.0 | --- | --- |
| 25 | --- | --- | --- | 2.0 | 4.0 | 9.0 | --- | --- | 15.0 | 21.0 | --- | --- |
| 26 | --- | --- | --- | 2.0 | 4.0 | 8.0 | --- | --- | 16.0 | 20.0 | --- | --- |
| 27 | --- | --- | --- | 2.0 | 3.0 | 8.0 | --- | --- | 16.0 | 20.0 | --- | --- |
| 28 | --- | --- | --- | 2.0 | 3.0 | 8.0 | --- | --- | 16.0 | 19.0 | --- | --- |
| 29 | --- | --- | --- | 2.0 | 4.0 | 7.0 | --- | --- | 18.0 | 21.0 | --- | --- |
| 30 | --- | --- | --- | 1.0 | --- | 7.0 | --- | --- | 18.0 | 22.0 | --- | --- |
| 31 | --- | --- | --- | 2.0 | --- | 7.0 | --- | --- | --- | 22.0 | --- | --- |

### SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | JUN | | | | |
| 13... | 1430 | 1910 | 10 | 52 | 06... | 1130 | 16500 | 361 | 16100 |
| DEC | | | | | 20... | 1115 | 15200 | 167 | 6850 |
| 11... | 1200 | 1880 | 14 | 71 | JUL | | | | |
| MAR | | | | | 18... | 1215 | 4250 | 23 | 264 |
| 21... | 1230 | 1810 | 70 | 342 | SEP | | | | |
| MAY | | | | | | | | | |
| 02... | 1200 | 6200 | 528 | 8840 | 15... | 1200 | 2350 | 8 | 51 |

## 09095000 ROAN CREEK NEAR DE BEQUE, CO

LOCATION.--Lat 39°27'12", long 108°18'59", in NE¼NW¼ sec.15, T.7 S., R.98 W., Garfield County, Hydrologic Unit 14010005, on left bank 5.0 ft (2 m) downstream from bridge, 0.7 mi (1.1 km) downstream from Kimball Creek, and 10 mi (16 km) northwest of De Beque.

DRAINAGE AREA.--321 mi² (831 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1921 to September 1926, October 1962 to September 1972, October 1974 to current year.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,380 ft (1,640 m), from topographic map. Prior to October 1962, nonrecording gage at present site at different datum.

REMARKS.--Records good except those for periods of stage-discharge relation indefinite due to bridge construction May 14 to June 15, and no gage-height record, which are poor. Diversions above station for irrigation of about 2,800 acres (11.3 km²) above and about 570 acres (2.31 km²) below station.

AVERAGE DISCHARGE.--21 years (water years 1922-26, 1963-72, 1975-80), 43.2 ft³/s (1.223 m³/s), 31,300 acre-ft/yr (38.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,020 ft³/s (57.2 m³/s) May 11, 1980, gage height, 9.21 ft (2.807 m), from rating curve extended above 130 ft³/s (3.7 m³/s), on basis of slope-area measurements at gage heights 4.30 and 6.09 ft (1.311 and 1.856 m); minimum daily, 3.2 ft³/s (0.091 m³/s) Nov. 25, 1963, but may have been less during periods of no gage-height record.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

| Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) | Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. 14 | 1400 | 360 | 10.2 | 7.48 | 2.280 | May 11 | 2300 | *2,020 | 57.2 | 9.21 | 2.807 |
| Feb. 15 | 2300 | 240 | 6.80 | 7.35 | 2.240 | | | | | | |

Minimum daily discharge, 11 ft³/s (0.312 m³/s) Dec. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16 | 19 | 20 | 25 | 29 | 32 | 36 | 620 | 540 | 120 | 33 | 31 |
| 2 | 16 | 17 | 22 | 25 | 29 | 31 | 37 | 801 | 500 | 110 | 34 | 29 |
| 3 | 16 | 20 | 24 | 25 | 31 | 30 | 36 | 963 | 450 | 110 | 35 | 29 |
| 4 | 15 | 19 | 26 | 24 | 31 | 34 | 36 | 1040 | 400 | 100 | 38 | 28 |
| 5 | 15 | 19 | 26 | 24 | 32 | 34 | 37 | 989 | 320 | 96 | 35 | 28 |
| 6 | 15 | 16 | 27 | 24 | 32 | 39 | 38 | 913 | 300 | 90 | 35 | 26 |
| 7 | 15 | 16 | 26 | 23 | 32 | 38 | 38 | 869 | 290 | 84 | 31 | 29 |
| 8 | 15 | 16 | 24 | 24 | 34 | 34 | 37 | 968 | 290 | 82 | 31 | 31 |
| 9 | 16 | 25 | 24 | 24 | 39 | 34 | 39 | 901 | 300 | 80 | 34 | 29 |
| 10 | 15 | 25 | 28 | 63 | 27 | 32 | 37 | 856 | 320 | 78 | 31 | 31 |
| 11 | 16 | 26 | 28 | 32 | 27 | 32 | 38 | 1230 | 300 | 74 | 31 | 29 |
| 12 | 19 | 26 | 23 | 30 | 27 | 32 | 39 | 1500 | 290 | 72 | 28 | 28 |
| 13 | 19 | 27 | 24 | 29 | 29 | 30 | 39 | 1260 | 270 | 72 | 28 | 26 |
| 14 | 18 | 27 | 26 | 142 | 80 | 28 | 42 | 1100 | 250 | 70 | 28 | 29 |
| 15 | 18 | 27 | 27 | 59 | 133 | 29 | 46 | 1000 | 240 | 68 | 36 | 28 |
| 16 | 18 | 38 | 29 | 37 | 61 | 30 | 50 | 950 | 220 | 64 | 36 | 26 |
| 17 | 18 | 30 | 30 | 33 | 39 | 28 | 55 | 900 | 200 | 62 | 36 | 24 |
| 18 | 18 | 33 | 30 | 33 | 81 | 28 | 67 | 880 | 190 | 62 | 34 | 24 |
| 19 | 18 | 32 | 30 | 31 | 70 | 29 | 96 | 850 | 180 | 58 | 32 | 24 |
| 20 | 19 | 30 | 28 | 30 | 80 | 30 | 152 | 830 | 170 | 56 | 29 | 23 |
| 21 | 21 | 29 | 27 | 30 | 54 | 30 | 188 | 800 | 160 | 54 | 32 | 27 |
| 22 | 19 | 28 | 27 | 29 | 50 | 31 | 205 | 760 | 160 | 52 | 34 | 25 |
| 23 | 20 | 28 | 25 | 27 | 45 | 32 | 207 | 740 | 150 | 52 | 34 | 23 |
| 24 | 21 | 28 | 25 | 28 | 36 | 33 | 235 | 720 | 150 | 48 | 44 | 24 |
| 25 | 21 | 28 | 25 | 30 | 34 | 37 | 274 | 720 | 140 | 46 | 38 | 22 |
| 26 | 22 | 27 | 25 | 30 | 35 | 39 | 321 | 700 | 140 | 42 | 33 | 22 |
| 27 | 21 | 26 | 26 | 31 | 36 | 38 | 314 | 680 | 130 | 39 | 32 | 23 |
| 28 | 21 | 22 | 27 | 31 | 38 | 38 | 363 | 640 | 130 | 37 | 28 | 24 |
| 29 | 22 | 21 | 26 | 33 | 36 | 37 | 451 | 600 | 120 | 36 | 29 | 23 |
| 30 | 23 | 20 | 26 | 35 | --- | 37 | 531 | 580 | 120 | 32 | 31 | 22 |
| 31 | 20 | --- | 23 | 32 | --- | 35 | --- | 560 | --- | 32 | 30 | --- |
| TOTAL | 566 | 745 | 804 | 1073 | 1307 | 1021 | 4084 | 26920 | 7420 | 2078 | 1020 | 787 |
| MEAN | 18.3 | 24.8 | 25.9 | 34.6 | 45.1 | 32.9 | 136 | 868 | 247 | 67.0 | 32.9 | 26.2 |
| MAX | 23 | 38 | 30 | 142 | 133 | 39 | 531 | 1500 | 540 | 120 | 44 | 31 |
| MIN | 15 | 16 | 20 | 23 | 27 | 28 | 36 | 560 | 120 | 32 | 28 | 22 |
| AC-FT | 1120 | 1480 | 1590 | 2130 | 2590 | 2030 | 8100 | 53400 | 14720 | 4120 | 2020 | 1560 |

CAL YR 1979 TOTAL 29248.5 MEAN 80.1 MAX 1130 MIN 9.6 AC-FT 58010
WTR YR 1980 TOTAL 47825.0 MEAN 131 MAX 1500 MIN 15 AC-FT 94860

NOTE.--NO GAGE-HEIGHT RECORD JUNE 17 TO JULY 28.

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1975 to current year (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1975 to current year.
WATER TEMPERATURE: February 1975 to current year.
SUSPENDED-SEDIMENT DISCHARGE: March 1975 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1975. Pumping sediment sampler since March 1975.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,480 micromhos Sept. 19, 1975; minimum daily, 459 micromhos May 21, 1979.
WATER TEMPERATURES: Maximum daily, 29.0°C several days during July 1977; minimum daily, freezing point on many days during winter months most years.
SEDIMENT CONCENTRATIONS: Maximum daily, 47,900 mg/L Aug. 25, 1977; minimum daily, 5 mg/L, estimated Sept. 28-30, 1978.
SEDIMENT LOADS: Maximum daily, 34,400 tons (32,200 t) May 12, 1980; minimum daily, 0.14 ton (0.13 t), estimated Sept. 28-30, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2,000 micromhos July 28; minimum, 515 micromhos Jan. 14.
WATER TEMPERATURES: Maximum, 24.5°C July 27, 28, Aug. 9; minimum, 0.5°C several days during November and December.
SEDIMENT CONCENTRATONS: Maximum daily, 8,500 mg/L May 12; minimum daily, 18 mg/L Oct. 10.
SEDIMENT LOADS: Maximum daily, 34,400 tons (31,200 t) May 12; minimum daily, 0.73 ton (0.66 t), Oct. 10.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | OXYGEN, DISSOLVED (MG/L) | NITROGEN, DISSOLVED (MG/L AS N) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 04... | 1315 | 15 | 1450 | 8.1 | 12.0 | 9.8 | -- | 590 | 180 | 94 | 85 |
| DEC | | | | | | | | | | | |
| 20... | 1400 | 29 | 1400 | 8.1 | 3.5 | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 24... | 1200 | 25 | 1250 | 8.0 | 2.5 | 11.2 | -- | 510 | 95 | 82 | 73 |
| MAR | | | | | | | | | | | |
| 04... | 1400 | 32 | 1200 | -- | 8.5 | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 09... | 1400 | 39 | 1150 | 8.4 | 13.0 | 9.2 | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 01... | 1200 | 587 | 650 | 8.1 | 7.0 | 9.6 | -- | -- | -- | -- | -- |
| 08... | 1100 | 957 | 662 | 8.1 | 8.0 | 9.4 | -- | 280 | 16 | 54 | 34 |
| JUL | | | | | | | | | | | |
| 07... | 1400 | 84 | 1150 | 8.0 | 17.0 | 7.4 | -- | 440 | 64 | 74 | 63 |
| 10... | 1100 | 6170 | 520 | 8.3 | 18.0 | 8.4 | .46 | -- | -- | -- | -- |

## 09095000 ROAN CREEK NEAR DE BEQUE, CO--Continued

### WATER-QUALITY RECORDS

| DATE | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 04... | 160 | 2.9 | 4.9 | 410 | 470 | 11 | .7 | 16 | 1090 | 1.48 |
| DEC | | | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 24... | 120 | 2.3 | 3.2 | 410 | 300 | 14 | .7 | 17 | 857 | 1.17 |
| MAR | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 48 | 1.3 | 2.0 | 260 | 91 | 3.3 | .2 | 17 | 407 | .55 |
| JUL | | | | | | | | | | |
| 07... | 110 | 2.3 | 3.9 | 380 | 270 | 7.7 | .8 | 18 | 776 | 1.06 |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) | NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 04... | 44.1 | .78 | -- | .020 | .64 | .66 | -- | 1.4 | .020 | -- |
| DEC | | | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 24... | 56.7 | 1.5 | -- | .020 | .43 | .45 | -- | 2.0 | .050 | -- |
| MAR | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 1050 | 1.2 | -- | .000 | 1.1 | 1.1 | -- | 2.3 | .280 | -- |
| JUL | | | | | | | | | | |
| 07... | 176 | 1.2 | -- | .030 | 1.2 | 1.2 | -- | 2.4 | .030 | -- |
| 10... | -- | .12 | .07 | -- | -- | .40 | .39 | .52 | .020 | .010 |

| DATE | BORON, DIS-SOLVED (UG/L AS B) | IRON, DIS-SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) | CYANIDE TOTAL (MG/L AS CN) | PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M | PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M | CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) | CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) | BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 04... | 290 | 20 | 5.8 | 5.4 | .00 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | 12.3 | 12.8 | 4.99 | .000 | 100 |
| JAN | | | | | | | | | | |
| 24... | 210 | <10 | 12 | 7.8 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | 23.3 | 25.4 | 32.1 | .000 | 65.4 |
| APR | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 70 | <10 | 76 | 7.8 | .00 | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | |
| 07... | 200 | 10 | 29 | 30 | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

## 09095000 ROAN CREEK NEAR DE BEQUE, CO--Continued

### WATER-QUALITY RECORDS

| DATE | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, TOTAL RECOVERABLE (UG/L AS BA) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | CHROMIUM, DISSOLVED (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 04... | 260 | 10 | 3 | 3 | 100 | 80 | 0 | <1 | 5 | 2 | 20 | 10 |
| MAY | | | | | | | | | | | | |
| 08... | 3400 | 20 | 7 | 4 | 200 | 70 | 0 | <1 | 1 | <1 | 0 | 0 |
| JUL | | | | | | | | | | | | |
| 10... | -- | -- | 1 | 2 | -- | -- | -- | -- | 0 | 0 | 22 | 0 |

| DATE | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | COPPER, DISSOLVED (UG/L AS CU) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | LEAD, DISSOLVED (UG/L AS PB) | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MERCURY DISSOLVED (UG/L AS HG) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 04... | 0 | <3 | 0 | 1 | 48 | 37 | 60 | 60 | 40 | .0 | .0 |
| MAY | | | | | | | | | | | |
| 08... | 5 | <3 | 8 | 4 | 3 | 4 | 20 | 130 | 6 | .0 | .0 |
| JUL | | | | | | | | | | | |
| 10... | -- | -- | 15 | 1 | 41 | 2 | -- | -- | -- | .0 | .0 |

| DATE | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SELENIUM, DISSOLVED (UG/L AS SE) | STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 04... | 18 | 21 | 1 | 5 | 6 | 4 | 1300 | 1500 | 2.0 | 0 | <3 |
| MAY | | | | | | | | | | | |
| 08... | 17 | 18 | 12 | 2 | 3 | 2 | -- | 720 | 7.0 | 30 | 4 |
| JUL | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | 1 | 0 | -- | -- | -- | 20 | 0 |

### SUSPENDED SEDIMENT DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| APR | | | | | | | | | | | |
| 24... | 0900 | 243 | 4030 | 2640 | 25 | 39 | 72 | 8 | 54 | 93 | 99 |
| MAY | | | | | | | | | | | |
| 01... | 1000 | 587 | 5840 | 9260 | 15 | 25 | 51 | 6 | 55 | 95 | 100 |
| 08... | 1100 | 957 | 5590 | 14400 | 24 | 32 | 64 | 12 | 71 | 95 | 100 |
| 30... | 1300 | 1160 | 3690 | 11600 | 24 | 34 | 64 | 87 | 92 | 95 | 100 |
| JUN | | | | | | | | | | | |
| 09... | 1200 | 286 | 1880 | 1300 | 21 | 31 | 59 | 84 | 90 | 94 | 100 |

## 09095000 ROAN CREEK NEAR DE BEQUE, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1170 | 1140 | 1290 | 1300 | 1250 | 1240 | 1170 | 615 | 790 | 950 | 1440 | 1230 |
| 2 | 1640 | 1140 | 1260 | 1300 | 1250 | 1230 | 1160 | 644 | 804 | 970 | 1420 | 1220 |
| 3 | 1550 | 1150 | 1220 | 1320 | 1250 | 1230 | 1160 | 640 | 823 | 980 | 1420 | 1230 |
| 4 | 1450 | 1160 | 1210 | 1320 | 1250 | 1210 | 1170 | 650 | 833 | 990 | 1420 | 1240 |
| 5 | 1400 | 1170 | 1230 | 1310 | 1250 | 1190 | 1170 | 644 | 845 | 1000 | 1410 | 1250 |
| 6 | 1390 | 1190 | 1220 | 1300 | 1250 | 1180 | 1160 | 647 | 860 | 1010 | 1410 | 1270 |
| 7 | 1340 | 1190 | 1240 | 1280 | 1260 | 1190 | 1150 | 643 | 867 | 1030 | 1400 | 1260 |
| 8 | 1280 | 1180 | 1260 | 1290 | 1260 | 1210 | 1150 | 629 | 861 | 1040 | 1400 | 1250 |
| 9 | 1240 | 1180 | 1240 | 1290 | 1260 | 1210 | 1140 | 598 | --- | 1050 | 1380 | 1220 |
| 10 | 1250 | 1170 | 1220 | 938 | 1280 | 1210 | 1130 | 607 | 886 | 1060 | 1380 | 1230 |
| 11 | 1140 | 1160 | 1210 | 1190 | 1260 | 1210 | 1120 | 616 | 877 | 1080 | 1400 | 1240 |
| 12 | 1040 | 1160 | 1260 | 1250 | 1260 | 1200 | 1120 | 629 | 860 | 1090 | 1400 | 1260 |
| 13 | 965 | 1170 | 1280 | 1250 | 1230 | 1210 | 1110 | 644 | 849 | 1100 | 1410 | 1270 |
| 14 | 962 | 1180 | 1290 | 785 | 957 | 1220 | 1110 | 653 | 849 | 1110 | 1410 | 1270 |
| 15 | 975 | 1180 | 1300 | 1050 | 699 | 1220 | 1100 | 656 | 839 | 1130 | 1380 | 1280 |
| 16 | 1130 | 1190 | 1310 | 1180 | 1020 | 1210 | 1080 | 653 | 818 | 1140 | 1390 | 1300 |
| 17 | 1540 | 1190 | 1330 | 1220 | 1200 | 1220 | 1060 | 654 | 780 | 1150 | 1390 | 1320 |
| 18 | 1370 | 1200 | 1350 | 1220 | 1030 | 1210 | 1020 | 648 | 790 | 1160 | 1370 | 1310 |
| 19 | 1320 | 1190 | 1370 | 1230 | 1100 | 1200 | 942 | 655 | 805 | 1180 | 1360 | 1310 |
| 20 | 1120 | 1190 | 1380 | 1250 | 1140 | 1190 | 853 | 654 | 815 | 1190 | 1360 | 1320 |
| 21 | 1420 | 1210 | 1380 | 1250 | 1250 | 1190 | 783 | 651 | 830 | 1200 | 1360 | 1320 |
| 22 | 1730 | 1220 | 1370 | 1240 | 1260 | 1190 | 750 | 644 | 840 | 1210 | 1310 | 1310 |
| 23 | 1770 | 1240 | 1370 | 1250 | 1270 | 1190 | 745 | 637 | 850 | 1230 | 1300 | 1330 |
| 24 | 1720 | 1260 | 1350 | 1250 | 1280 | 1180 | 731 | 645 | 870 | 1240 | 1230 | 1330 |
| 25 | 1610 | 1260 | 1350 | 1240 | 1270 | 1160 | 704 | 667 | 880 | 1250 | 1190 | 1330 |
| 26 | 1470 | 1270 | 1340 | 1240 | 1260 | 1180 | 671 | 697 | 890 | 1290 | 1210 | 1330 |
| 27 | 1460 | 1270 | 1340 | 1240 | 1260 | 1210 | 648 | 727 | 900 | 1340 | 1210 | 1330 |
| 28 | 1230 | 1280 | 1320 | 1200 | 1240 | 1190 | 619 | 749 | 920 | 1370 | 1240 | 1320 |
| 29 | 1220 | 1290 | 1320 | 1150 | 1240 | 1180 | 586 | 755 | 930 | 1360 | 1240 | 1310 |
| 30 | 1140 | 1290 | 1310 | 1170 | --- | 1170 | 569 | 767 | 940 | 1410 | 1230 | 1320 |
| 31 | 1130 | --- | 1310 | 1250 | --- | 1170 | --- | 779 | --- | 1410 | 1220 | --- |

## 09095000 ROAN CREEK NEAR DE BEQUE, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 16.5 | 9.0 | 6.5 | 3.5 | 3.5 | .5 | 4.0 | 2.0 | 5.5 | 1.5 | 10.5 | 4.5 |
| 2 | 16.5 | 9.0 | 7.0 | 4.5 | 4.0 | 1.0 | --- | --- | 5.5 | 1.5 | 8.5 | 3.5 |
| 3 | 16.5 | 9.5 | 7.0 | 4.5 | 4.5 | 1.5 | --- | --- | 7.5 | 3.5 | 8.0 | 5.5 |
| 4 | 16.0 | 8.5 | 7.0 | 5.0 | 5.0 | 2.0 | --- | --- | 9.0 | 5.5 | 9.5 | 6.0 |
| 5 | 16.5 | 8.0 | 7.5 | 5.5 | 5.5 | 2.5 | --- | --- | 7.5 | 2.5 | 8.5 | 4.5 |
| 6 | 16.5 | 8.0 | 7.5 | 5.0 | 5.0 | 2.0 | --- | --- | 7.5 | 3.5 | 7.5 | 6.0 |
| 7 | 17.0 | 8.0 | 7.5 | 7.0 | 5.0 | 2.0 | --- | --- | 7.0 | 3.5 | 8.5 | 4.5 |
| 8 | 16.5 | 8.0 | 9.0 | 7.5 | 6.0 | 3.5 | --- | --- | 5.0 | 1.0 | 9.0 | 5.5 |
| 9 | 16.5 | 8.0 | 8.0 | 6.0 | 5.5 | 2.5 | --- | --- | 5.5 | 1.0 | 9.5 | 4.5 |
| 10 | 16.0 | 8.0 | 7.5 | 4.5 | 5.5 | 2.5 | --- | --- | 6.0 | 1.0 | 11.0 | 3.5 |
| 11 | 15.5 | 7.5 | 6.5 | 4.0 | 4.5 | 1.0 | --- | --- | 6.0 | 1.5 | 8.5 | 4.0 |
| 12 | 15.5 | 8.0 | 6.5 | 3.0 | 3.0 | .5 | --- | --- | 6.0 | 1.5 | 9.0 | 5.5 |
| 13 | 15.5 | 8.0 | 6.5 | 2.5 | 3.0 | .5 | --- | --- | 8.0 | 2.5 | 10.5 | 2.5 |
| 14 | 13.0 | 8.0 | 6.5 | 2.5 | 3.5 | 1.0 | --- | --- | 6.0 | 3.0 | 12.5 | 3.5 |
| 15 | 15.0 | 7.5 | 6.5 | 2.5 | 3.5 | 1.0 | --- | --- | 5.0 | 3.5 | 11.5 | 5.0 |
| 16 | 15.5 | 9.0 | 6.5 | 2.0 | 4.0 | 1.0 | --- | --- | 8.0 | 4.5 | 9.5 | 4.5 |
| 17 | 12.5 | 7.5 | 6.0 | 2.0 | 4.0 | 1.0 | 7.5 | 5.5 | 8.0 | 5.5 | 9.0 | 1.0 |
| 18 | 14.0 | 9.5 | 7.5 | 5.5 | 4.0 | 1.0 | 6.5 | 5.0 | 7.0 | 4.0 | 11.0 | 2.0 |
| 19 | 13.5 | 10.0 | 5.0 | 3.5 | 4.0 | 1.0 | 5.0 | 2.5 | 8.0 | 4.0 | 13.5 | 5.0 |
| 20 | 11.5 | 9.0 | 5.0 | 3.0 | 4.0 | 1.5 | 5.5 | 1.5 | 6.5 | 4.5 | 13.0 | 4.0 |
| 21 | 9.5 | 7.5 | 5.0 | 2.0 | 4.5 | 2.0 | 7.0 | 3.0 | 7.5 | 5.5 | 12.0 | 4.0 |
| 22 | 9.0 | 6.0 | 4.0 | .5 | 5.5 | 4.0 | 5.5 | 2.0 | 9.0 | 5.0 | 9.5 | 6.5 |
| 23 | 10.0 | 6.5 | 3.5 | .5 | 5.5 | 3.0 | 5.5 | 1.5 | 8.0 | 4.0 | 11.5 | 5.5 |
| 24 | 10.0 | 7.0 | 5.0 | 2.0 | 4.5 | 1.5 | 5.5 | 2.0 | 8.0 | 2.5 | 11.5 | 6.0 |
| 25 | 11.0 | 7.0 | 6.0 | 3.0 | 5.0 | 2.0 | 6.5 | 2.5 | 8.0 | 2.0 | 8.0 | 3.5 |
| 26 | 11.5 | 7.5 | 5.0 | 3.5 | 4.5 | 2.0 | 6.5 | 3.0 | 9.0 | 2.5 | 11.5 | 2.5 |
| 27 | 11.0 | 8.0 | 4.0 | 1.5 | 4.5 | 3.0 | 7.0 | 4.0 | 10.0 | 3.5 | 12.5 | 2.0 |
| 28 | 10.0 | 6.5 | 3.5 | 1.0 | 4.5 | 2.0 | 6.0 | 2.0 | 10.0 | 3.5 | 10.0 | 5.0 |
| 29 | 8.5 | 7.0 | 3.5 | .5 | 4.0 | 2.5 | 4.5 | 2.0 | 9.5 | 5.5 | 10.5 | 5.0 |
| 30 | 7.0 | 5.0 | 3.0 | .5 | 4.5 | 2.0 | 5.5 | 2.0 | --- | --- | 9.0 | 4.5 |
| 31 | 7.0 | 4.0 | --- | --- | 3.5 | 1.0 | 5.0 | 1.0 | --- | --- | 9.0 | 3.5 |

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 13.0 | 4.5 | 11.5 | 8.0 | 14.5 | 8.0 | --- | --- | 22.0 | 15.5 | 21.0 | 10.5 |
| 2 | 7.5 | 5.0 | 11.5 | 7.0 | 15.5 | 7.5 | --- | --- | 22.0 | 14.5 | 21.5 | 11.0 |
| 3 | 11.5 | 2.5 | 12.0 | 7.0 | 16.5 | 9.0 | --- | --- | 24.0 | 14.0 | 21.5 | 11.0 |
| 4 | 15.5 | 5.5 | 12.0 | 8.0 | 17.0 | 8.5 | --- | --- | 23.0 | 13.0 | 22.0 | 11.5 |
| 5 | 15.0 | 6.5 | 12.0 | 8.0 | 17.0 | 9.0 | --- | --- | 24.0 | 13.5 | 22.0 | 12.0 |
| 6 | 14.5 | 7.0 | 12.5 | 8.0 | 17.0 | 9.0 | --- | --- | 24.0 | 13.5 | 22.0 | 13.5 |
| 7 | 11.5 | 6.5 | 11.5 | 8.0 | 17.5 | 9.0 | --- | --- | 24.0 | 13.5 | 20.0 | 14.0 |
| 8 | 14.0 | 3.0 | 13.0 | 8.0 | 17.0 | 9.0 | --- | --- | 24.0 | 13.5 | 19.5 | 14.0 |
| 9 | 15.5 | 5.0 | 10.5 | 8.0 | 18.5 | 9.5 | --- | --- | 24.5 | 14.5 | 17.5 | 14.0 |
| 10 | 13.5 | 7.0 | 10.5 | 8.0 | 19.0 | 10.0 | --- | --- | 24.0 | 14.0 | 16.5 | 14.0 |
| 11 | 11.5 | 5.5 | 9.5 | 8.0 | 19.0 | 10.0 | --- | --- | 23.5 | 12.5 | 19.5 | 11.0 |
| 12 | 13.5 | 3.5 | 8.0 | 6.5 | 19.0 | 9.5 | --- | --- | 23.5 | 12.0 | 19.0 | 12.0 |
| 13 | 15.0 | 3.5 | 11.5 | 6.5 | 18.5 | 9.5 | --- | --- | 24.0 | 14.0 | 20.0 | 11.5 |
| 14 | 16.5 | 4.5 | 11.5 | 7.0 | 18.0 | 9.0 | --- | --- | 21.5 | 15.0 | 18.5 | 10.5 |
| 15 | 17.5 | 6.5 | 12.0 | 7.0 | 18.5 | 9.5 | --- | --- | 21.5 | 15.5 | 19.5 | 10.5 |
| 16 | 16.5 | 6.0 | 13.5 | 8.0 | 19.0 | 9.5 | --- | --- | 21.0 | 13.5 | 20.0 | 12.5 |
| 17 | 17.5 | 6.0 | 10.5 | 7.5 | --- | --- | --- | --- | 21.5 | 12.5 | 19.5 | 10.5 |
| 18 | 17.5 | 6.5 | 13.5 | 6.5 | --- | --- | --- | --- | 21.5 | 12.0 | 19.5 | 10.5 |
| 19 | 17.5 | 7.0 | 13.5 | 7.5 | --- | --- | --- | --- | 20.0 | 12.0 | 20.0 | 11.5 |
| 20 | 17.0 | 7.5 | 14.0 | 8.0 | --- | --- | --- | --- | 21.0 | 11.0 | 19.5 | 11.5 |
| 21 | 15.0 | 7.5 | 16.5 | 8.5 | --- | --- | --- | --- | 21.5 | 11.0 | 18.0 | 10.0 |
| 22 | 13.5 | 7.5 | 15.5 | 8.5 | --- | --- | --- | --- | 21.0 | 11.0 | 18.0 | 9.5 |
| 23 | 14.5 | 7.5 | 14.5 | 9.0 | --- | --- | --- | --- | 20.0 | 14.5 | 17.5 | 8.5 |
| 24 | 11.5 | 7.5 | 12.5 | 8.0 | --- | --- | --- | --- | 19.0 | 14.5 | 17.5 | 9.0 |
| 25 | 14.5 | 6.0 | 10.0 | 6.0 | --- | --- | --- | --- | 18.5 | 10.5 | 18.0 | 9.0 |
| 26 | 14.5 | 6.0 | 12.5 | 5.5 | --- | --- | 23.0 | 13.0 | 20.0 | 12.5 | 18.0 | 9.0 |
| 27 | 14.0 | 6.0 | 14.5 | 7.0 | --- | --- | 24.5 | 13.5 | 21.5 | 11.5 | 18.0 | 9.5 |
| 28 | 15.5 | 6.5 | 15.0 | 7.5 | --- | --- | 24.5 | 13.5 | 22.0 | 12.0 | 18.0 | 10.0 |
| 29 | 12.0 | 8.5 | 14.5 | 8.5 | --- | --- | 22.0 | 14.0 | 18.5 | 13.0 | 18.0 | 10.0 |
| 30 | 11.0 | 8.5 | 15.5 | 7.5 | --- | --- | 21.0 | 15.5 | 20.0 | 10.5 | 18.0 | 9.5 |
| 31 | --- | --- | 15.5 | 7.5 | --- | --- | 22.0 | 15.0 | 20.0 | 11.0 | --- | --- |

09095000 ROAN CREEK NEAR DE BEQUE, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | |
| 1 | 16 | 30 | 1.3 | 19 | 70 | 3.6 | 20 | 79 | 4.3 |
| 2 | 16 | --- | 1.3 | 19 | 47 | 2.4 | 22 | 86 | 5.1 |
| 3 | 16 | --- | 1.3 | 20 | 59 | 3.2 | 24 | 71 | 4.6 |
| 4 | 15 | --- | .85 | 18 | 77 | 3.7 | 26 | 77 | 5.4 |
| 5 | 15 | 24 | .97 | 18 | 66 | 3.2 | 26 | 88 | 6.2 |
| 6 | 15 | 20 | .81 | 16 | 50 | 2.2 | 27 | 113 | 8.2 |
| 7 | 15 | 22 | .89 | 16 | 39 | 1.7 | 26 | 79 | 5.5 |
| 8 | 15 | 20 | .81 | 16 | 57 | 2.5 | 24 | 71 | 4.6 |
| 9 | 16 | 32 | 1.4 | 25 | 39 | 2.6 | 24 | 68 | 4.4 |
| 10 | 15 | 18 | .73 | 25 | 67 | 4.5 | 28 | 90 | 6.8 |
| 11 | 16 | 59 | 2.5 | 26 | 125 | 8.8 | 28 | 57 | 4.3 |
| 12 | 19 | 51 | 2.6 | 26 | 58 | 4.1 | 23 | 66 | 4.1 |
| 13 | 19 | 59 | 3.0 | 27 | 111 | 8.1 | 24 | 66 | 4.3 |
| 14 | 18 | 77 | 3.7 | 27 | 19 | 1.4 | 26 | 98 | 6.9 |
| 15 | 18 | 42 | 2.0 | 27 | 38 | 2.8 | 27 | 98 | 7.1 |
| 16 | 18 | 30 | 1.5 | 38 | 44 | 4.5 | 29 | 114 | 8.9 |
| 17 | 18 | 60 | 2.9 | 30 | 31 | 2.5 | 30 | 110 | 9.6 |
| 18 | 18 | 41 | 2.0 | 33 | 41 | 3.7 | 30 | 93 | 7.5 |
| 19 | 18 | 48 | 2.3 | 32 | 25 | 2.2 | 30 | 113 | 9.2 |
| 20 | 19 | 94 | 4.8 | 30 | 21 | 1.7 | 28 | 103 | 7.8 |
| 21 | 21 | 80 | 4.5 | 29 | 24 | 1.9 | 27 | 88 | 6.4 |
| 22 | 19 | 70 | 3.6 | 28 | 153 | 12 | 27 | 69 | 5.0 |
| 23 | 20 | 75 | 4.0 | 28 | 90 | 6.8 | 25 | 49 | 3.3 |
| 24 | 21 | 92 | 5.2 | 28 | 41 | 3.1 | 25 | 45 | 3.0 |
| 25 | 21 | 87 | 4.9 | 28 | 36 | 2.8 | 25 | 58 | 3.9 |
| 26 | 22 | 71 | 4.2 | 27 | 35 | 2.6 | 25 | 53 | 3.6 |
| 27 | 21 | 65 | 3.7 | 26 | 45 | 3.2 | 26 | 53 | 3.7 |
| 28 | 21 | 112 | 6.4 | 22 | 105 | 6.2 | 27 | 52 | 3.8 |
| 29 | 22 | 102 | 6.1 | 21 | 75 | 4.3 | 26 | 55 | 3.9 |
| 30 | 23 | 81 | 5.0 | 20 | 47 | 2.5 | 26 | 36 | 2.5 |
| 31 | 20 | 95 | 5.1 | --- | --- | --- | 23 | 61 | 3.8 |

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | JANUARY | | | FEBRUARY | | | MARCH | |
| 1 | 25 | 55 | 3.7 | 29 | 118 | 9.2 | 32 | 228 | 20 |
| 2 | 25 | 35 | 2.4 | 29 | 139 | 11 | 31 | 192 | 16 |
| 3 | 25 | 44 | 3.0 | 31 | 99 | 8.3 | 30 | 213 | 17 |
| 4 | 24 | 38 | 2.5 | 31 | 168 | 14 | 34 | 241 | 22 |
| 5 | 24 | 45 | 2.9 | 32 | 190 | 16 | 34 | 294 | 27 |
| 6 | 24 | 57 | 3.7 | 32 | 151 | 13 | 39 | 467 | 49 |
| 7 | 23 | 40 | 2.5 | 32 | 99 | 8.6 | 38 | 326 | 33 |
| 8 | 24 | 32 | 2.1 | 34 | 130 | 12 | 34 | 248 | 23 |
| 9 | 24 | 40 | 2.6 | 39 | 168 | 18 | 34 | 243 | 22 |
| 10 | 63 | 836 | 190 | 27 | 146 | 11 | 32 | 281 | 24 |
| 11 | 32 | 328 | 33 | 27 | 141 | 10 | 32 | 227 | 20 |
| 12 | 30 | 135 | 11 | 27 | 152 | 11 | 32 | 175 | 15 |
| 13 | 29 | 139 | 11 | 29 | 133 | 10 | 30 | 187 | 15 |
| 14 | 142 | 1310 | 811 | 80 | 1340 | 289 | 28 | 199 | 15 |
| 15 | 59 | 536 | 85 | 133 | 2270 | 815 | 29 | 283 | 22 |
| 16 | 37 | 305 | 30 | 61 | 810 | 133 | 30 | 217 | 18 |
| 17 | 33 | 243 | 22 | 39 | 414 | 44 | 28 | 256 | 19 |
| 18 | 33 | 169 | 15 | 81 | 2260 | 494 | 28 | 258 | 20 |
| 19 | 31 | 132 | 11 | 70 | 1360 | 257 | 29 | 227 | 18 |
| 20 | 30 | 119 | 9.6 | 80 | 1910 | 413 | 30 | 174 | 14 |
| 21 | 30 | 114 | 9.2 | 54 | 790 | 115 | 30 | 254 | 21 |
| 22 | 29 | 100 | 7.8 | 50 | 761 | 103 | 31 | 241 | 20 |
| 23 | 27 | 98 | 7.1 | 45 | 913 | 111 | 32 | 200 | 17 |
| 24 | 28 | 124 | 9.4 | 36 | 345 | 34 | 33 | 173 | 15 |
| 25 | 30 | 117 | 9.5 | 34 | 281 | 26 | 37 | 225 | 22 |
| 26 | 30 | 110 | 8.9 | 35 | 274 | 26 | 39 | 207 | 22 |
| 27 | 31 | 120 | 10 | 36 | 461 | 45 | 38 | 359 | 37 |
| 28 | 31 | 89 | 7.4 | 38 | 413 | 43 | 38 | 288 | 30 |
| 29 | 33 | 125 | 11 | 36 | 312 | 30 | 37 | 233 | 23 |
| 30 | 35 | 171 | 16 | --- | --- | --- | 37 | 193 | 19 |
| 31 | 32 | 141 | 12 | --- | --- | --- | 35 | 142 | 13 |

## 09095000 ROAN CREEK NEAR DE BEQUE, CO--Continued

### SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | APRIL | | | MAY | | | JUNE | |
| 1 | 36 | 180 | 17 | 620 | 4700 | 7870 | 540 | 2330 | 3400 |
| 2 | 37 | 184 | 18 | 801 | 4150 | 8980 | 500 | 2280 | 3080 |
| 3 | 36 | 185 | 18 | 963 | 4160 | 10800 | 450 | 2240 | 2720 |
| 4 | 36 | 206 | 20 | 1040 | 4330 | 12200 | 400 | 1990 | 2150 |
| 5 | 37 | 275 | 27 | 989 | 4640 | 12400 | 320 | 2130 | 1840 |
| 6 | 38 | 335 | 34 | 913 | 5090 | 12500 | 300 | 2030 | 1640 |
| 7 | 38 | 260 | 27 | 869 | 5100 | 12000 | 290 | 1410 | 1100 |
| 8 | 37 | 209 | 21 | 968 | 5730 | 15000 | 290 | 1460 | 1140 |
| 9 | 39 | 273 | 29 | 901 | 6630 | 16100 | 300 | 1300 | 1050 |
| 10 | 37 | 284 | 28 | 856 | 6920 | 16000 | 320 | 1370 | 1180 |
| 11 | 38 | 269 | 28 | 1230 | 7860 | 26100 | 300 | 1150 | 932 |
| 12 | 39 | 247 | 26 | 1500 | 8500 | 34400 | 290 | 1260 | 987 |
| 13 | 39 | 259 | 27 | 1260 | 8180 | 27800 | 270 | 1180 | 860 |
| 14 | 42 | 335 | 38 | 1100 | 7540 | 22400 | 250 | 1740 | 1170 |
| 15 | 46 | 438 | 54 | 1000 | 7200 | 19400 | 240 | 1190 | 771 |
| 16 | 50 | 510 | 69 | 950 | 5980 | 15300 | 220 | 979 | 582 |
| 17 | 55 | 648 | 96 | 900 | 6340 | 15400 | 200 | --- | 520 |
| 18 | 67 | 970 | 175 | 880 | 5940 | 14200 | 190 | --- | 490 |
| 19 | 96 | 1630 | 422 | 850 | 5550 | 12700 | 180 | --- | 460 |
| 20 | 152 | 2480 | 1020 | 830 | 5870 | 13200 | 170 | --- | 430 |
| 21 | 188 | 3270 | 1660 | 800 | 6160 | 13300 | 160 | --- | 400 |
| 22 | 205 | 3890 | 2150 | 760 | 7190 | 14800 | 160 | --- | 390 |
| 23 | 207 | 3420 | 1910 | 740 | 7870 | 15700 | 150 | --- | 360 |
| 24 | 235 | 3850 | 2440 | 720 | 7230 | 14100 | 150 | --- | 340 |
| 25 | 274 | 3650 | 2700 | 720 | 6190 | 12000 | 140 | --- | 310 |
| 26 | 321 | 3500 | 3030 | 700 | 5010 | 9470 | 140 | --- | 300 |
| 27 | 314 | 3070 | 2600 | 680 | 4200 | 7710 | 130 | --- | 270 |
| 28 | 363 | 2800 | 2740 | 640 | 3260 | 5630 | 130 | --- | 250 |
| 29 | 451 | 2460 | 3000 | 600 | 3520 | 5700 | 120 | --- | 220 |
| 30 | 531 | 2940 | 4220 | 580 | 3170 | 4960 | 120 | --- | 200 |
| 31 | --- | --- | --- | 560 | 2590 | 3920 | --- | --- | --- |

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 120 | --- | 190 | 33 | 103 | 9.2 | 31 | 108 | 9.0 |
| 2 | 110 | --- | 160 | 34 | 71 | 6.5 | 29 | 107 | 8.4 |
| 3 | 110 | --- | 150 | 35 | 99 | 9.4 | 29 | 111 | 8.7 |
| 4 | 100 | --- | 120 | 38 | 72 | 7.4 | 28 | 134 | 10 |
| 5 | 96 | --- | 100 | 35 | 274 | 26 | 28 | 100 | 7.6 |
| 6 | 90 | --- | 85 | 35 | 127 | 12 | 26 | 137 | 9.6 |
| 7 | 84 | --- | 70 | 31 | 151 | 13 | 29 | 106 | 8.3 |
| 8 | 82 | --- | 70 | 31 | 195 | 16 | 31 | 126 | 11 |
| 9 | 80 | --- | 65 | 34 | 145 | 13 | 29 | 171 | 13 |
| 10 | 78 | --- | 60 | 31 | 239 | 20 | 31 | 136 | 11 |
| 11 | 74 | 287 | 57 | 31 | 178 | 15 | 29 | 100 | 7.8 |
| 12 | 72 | 269 | 52 | 28 | 135 | 10 | 28 | 111 | 8.4 |
| 13 | 72 | 290 | 56 | 28 | 114 | 8.6 | 26 | 92 | 6.5 |
| 14 | 70 | 197 | 37 | 28 | 121 | 9.2 | 29 | 120 | 9.4 |
| 15 | 68 | 215 | 39 | 36 | 181 | 18 | 28 | 75 | 5.7 |
| 16 | 64 | 234 | 40 | 36 | 97 | 9.4 | 26 | 96 | 6.7 |
| 17 | 62 | 173 | 29 | 36 | 68 | 6.6 | 24 | 53 | 3.4 |
| 18 | 62 | 203 | 34 | 34 | 133 | 12 | 24 | 46 | 3.0 |
| 19 | 58 | 164 | 26 | 32 | 435 | 38 | 24 | 34 | 2.2 |
| 20 | 56 | 173 | 26 | 29 | 845 | 66 | 23 | 107 | 6.6 |
| 21 | 54 | 170 | 25 | 32 | 347 | 30 | 27 | 69 | 5.0 |
| 22 | 52 | 110 | 15 | 34 | 293 | 27 | 25 | 95 | 6.4 |
| 23 | 52 | 72 | 10 | 34 | 363 | 33 | 23 | 92 | 5.7 |
| 24 | 48 | 127 | 16 | 44 | 432 | 51 | 24 | 91 | 5.9 |
| 25 | 46 | 124 | 15 | 38 | 259 | 27 | 22 | 97 | 5.8 |
| 26 | 42 | 318 | 36 | 33 | 179 | 16 | 22 | 287 | 17 |
| 27 | 39 | 187 | 20 | 32 | 130 | 11 | 23 | 73 | 4.5 |
| 28 | 37 | 112 | 11 | 28 | 129 | 9.8 | 24 | 72 | 4.7 |
| 29 | 36 | 75 | 7.3 | 29 | 138 | 11 | 23 | 61 | 3.8 |
| 30 | 32 | 82 | 7.1 | 31 | 117 | 9.8 | 22 | 52 | 3.1 |
| 31 | 32 | 165 | 14 | 30 | 111 | 9.0 | --- | --- | --- |
| TOTAL | 2078 | --- | 1642.4 | 1020 | --- | 559.9 | 787 | --- | 218.2 |
| YEAR | 47825 | | 498179.76 | | | | | | |

## 09095400 DRY FORK NEAR DE BEQUE, CO

LOCATION.--Lat 39°22'08", long 108°15'41", in SE¼SW¼ sec.7, T.8 S., R.97 W., Garfield County, Hydrologic Unit 14010006, on right bank 0.4 mi (0.6 km) upstream from mouth and 3.4 mi (5.5 km) northwest of De Beque.

DRAINAGE AREA.--109 mi² (282 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR CO-76-2: 1975(M).

GAGE.--Water-stage recorder. Altitude of gage is 5,085 ft (1,550 m), from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, winter period, and those for period Nov. 28 to Dec. 19, which are poor. Diversions above station for irrigation of hay meadows. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 5.47 ft³/s (0.155 m³/s) 3,960 acre-ft/yr (4.88 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 784 ft³/s (22.2 m³/s) Oct. 27, 1974, gage height, 7.11 ft (2.167 m), from floodmarks, from rating curve extended above 47 ft³/s (1.3 m³/s), on basis of slope-area measurement of peak flow at gage height 6.93 ft (2.112 m); no flow Aug. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft³/s (2.3 m³/s) and maximum (*):

| Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) | Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Feb. 15 | 1100 | 94 | 2.66 | 4.28 | 1.305 | May 12 | 1400 | *146 | 4.13 | 4.55 | 1.387 |
| Feb. 20 | 2000 | 89 | 2.52 | 4.23 | 1.289 | | | | | | |

Minimum daily discharge, 2.0 ft³/s (0.057 m³/s) Dec. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.3 | 3.5 | 3.3 | 3.4 | 3.2 | 6.6 | 8.8 | 38 | 53 | 21 | 11 | 5.9 |
| 2 | 7.3 | 3.9 | 3.4 | 3.6 | 3.6 | 6.2 | 10 | 36 | 56 | 21 | 11 | 5.8 |
| 3 | 6.0 | 4.4 | 3.6 | 3.6 | 4.3 | 6.0 | 9.0 | 38 | 52 | 21 | 10 | 6.0 |
| 4 | 5.1 | 4.5 | 3.4 | 3.5 | 4.6 | 5.8 | 11 | 50 | 47 | 19 | 10 | 6.0 |
| 5 | 4.6 | 4.4 | 3.2 | 3.5 | 4.2 | 7.0 | 15 | 82 | 45 | 18 | 11 | 7.3 |
| 6 | 4.0 | 4.7 | 2.9 | 3.5 | 5.6 | 15 | 17 | 88 | 47 | 17 | 10 | 7.2 |
| 7 | 3.7 | 5.2 | 2.7 | 3.5 | 5.6 | 18 | 13 | 86 | 45 | 19 | 11 | 7.0 |
| 8 | 3.6 | 5.4 | 2.0 | 3.4 | 3.4 | 17 | 9.5 | 83 | 47 | 19 | 11 | 7.4 |
| 9 | 3.5 | 5.4 | 3.4 | 3.4 | 2.4 | 12 | 14 | 79 | 47 | 19 | 10 | 7.4 |
| 10 | 2.8 | 5.2 | 3.8 | 5.3 | 3.2 | 15 | 14 | 79 | 51 | 17 | 10 | 7.6 |
| 11 | 2.9 | 5.0 | 3.8 | 3.5 | 3.7 | 15 | 9.7 | 83 | 51 | 17 | 8.8 | 8.5 |
| 12 | 3.2 | 5.3 | 3.3 | 4.1 | 3.6 | 15 | 9.4 | 97 | 46 | 15 | 9.7 | 7.3 |
| 13 | 3.5 | 5.7 | 3.1 | 4.1 | 4.7 | 10 | 10 | 81 | 46 | 15 | 9.7 | 7.2 |
| 14 | 3.5 | 5.3 | 3.1 | 16 | 23 | 11 | 15 | 78 | 44 | 16 | 9.1 | 6.8 |
| 15 | 3.7 | 5.1 | 3.1 | 15 | 64 | 14 | 16 | 77 | 42 | 17 | 10 | 6.5 |
| 16 | 3.9 | 3.8 | 3.1 | 7.9 | 27 | 11 | 16 | 77 | 41 | 17 | 10 | 6.4 |
| 17 | 3.3 | 3.9 | 3.1 | 5.0 | 9.2 | 6.8 | 15 | 81 | 38 | 17 | 9.7 | 6.2 |
| 18 | 2.6 | 6.6 | 3.1 | 4.7 | 42 | 6.9 | 16 | 73 | 34 | 17 | 9.7 | 5.9 |
| 19 | 2.6 | 5.4 | 3.3 | 4.1 | 40 | 8.7 | 17 | 74 | 30 | 16 | 7.0 | 5.5 |
| 20 | 2.6 | 5.0 | 3.3 | 4.1 | 52 | 11 | 20 | 72 | 27 | 16 | 7.0 | 5.9 |
| 21 | 3.0 | 4.8 | 3.2 | 4.0 | 25 | 11 | 24 | 74 | 27 | 16 | 7.3 | 5.9 |
| 22 | 2.7 | 4.5 | 3.9 | 3.6 | 21 | 14 | 25 | 73 | 26 | 17 | 7.3 | 5.9 |
| 23 | 2.8 | 4.4 | 3.8 | 2.5 | 14 | 12 | 24 | 74 | 27 | 17 | 7.2 | 5.7 |
| 24 | 2.9 | 4.2 | 3.5 | 3.3 | 9.0 | 11 | 28 | 73 | 28 | 17 | 7.6 | 5.6 |
| 25 | 2.7 | 4.0 | 3.6 | 4.5 | 6.2 | 24 | 24 | 72 | 23 | 14 | 7.3 | 5.6 |
| 26 | 4.2 | 3.9 | 3.6 | 4.2 | 6.0 | 24 | 25 | 72 | 23 | 11 | 7.6 | 5.6 |
| 27 | 4.3 | 3.6 | 3.6 | 3.8 | 6.2 | 16 | 26 | 68 | 25 | 11 | 7.3 | 5.3 |
| 28 | 4.4 | 3.4 | 3.5 | 3.9 | 7.0 | 9.6 | 26 | 65 | 23 | 10 | 6.8 | 5.4 |
| 29 | 4.5 | 3.3 | 3.6 | 4.4 | 7.4 | 6.9 | 30 | 62 | 24 | 11 | 6.6 | 5.1 |
| 30 | 4.4 | 3.2 | 3.6 | 4.4 | --- | 7.9 | 39 | 59 | 24 | 11 | 6.2 | 5.3 |
| 31 | 4.4 | --- | 3.4 | 2.8 | --- | 8.5 | --- | 55 | --- | 11 | 5.9 | --- |
| TOTAL | 120.0 | 137.0 | 103.3 | 146.6 | 411.1 | 362.9 | 536.4 | 2199 | 1139 | 501 | 272.8 | 189.2 |
| MEAN | 3.87 | 4.57 | 3.33 | 4.73 | 14.2 | 11.7 | 17.9 | 70.9 | 38.0 | 16.2 | 8.80 | 6.31 |
| MAX | 7.3 | 6.6 | 3.9 | 16 | 64 | 24 | 39 | 97 | 56 | 21 | 11 | 8.5 |
| MIN | 2.6 | 3.2 | 2.0 | 2.5 | 2.4 | 5.8 | 8.8 | 36 | 23 | 10 | 5.9 | 5.1 |
| AC-FT | 238 | 272 | 205 | 291 | 815 | 720 | 1060 | 4360 | 2260 | 994 | 541 | 375 |

CAL YR 1979 TOTAL 3349.82 MEAN 9.18 MAX 54 MIN .10 AC-FT 6640
WTR YR 1980 TOTAL 6118.30 MEAN 16.7 MAX 97 MIN 2.0 AC-FT 12140

## 09095400 DRY FORK NEAR DEBEQUE--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 through September 1980.

WATER-QUALITY DATA. WATER YEAR OCTOBER OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW. INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE. WATER (DEG C) | OXYGEN. DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS. NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM. DIS-SOLVED (MG/L AS MG) | SODIUM. DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 09... | 1100 | 2.7 | 1680 | 8.4 | 10.0 | 9.3 | 550 | 200 | 75 | 68 | 200 | 3.7 |
| DEC | | | | | | | | | | | | |
| 20... | 1100 | 3.5 | 1800 | 8.1 | 1.0 | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 24... | 0900 | 2.2 | 2100 | 8.1 | 1.0 | 12.4 | 700 | 260 | 100 | 110 | 260 | 4.3 |
| MAR | | | | | | | | | | | | |
| 04... | 1200 | 5.7 | 1700 | -- | 5.5 | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 09... | 1200 | 8.2 | 1850 | 8.4 | 11.5 | 8.9 | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 01... | 1300 | 41 | 1150 | 8.4 | 10.5 | 9.4 | -- | -- | -- | -- | -- | -- |
| 08... | 1700 | 85 | 1000 | 8.2 | 14.5 | 8.1 | 390 | 120 | 68 | 52 | 85 | 1.9 |
| JUL | | | | | | | | | | | | |
| 07... | 1200 | 16 | 1200 | 8.1 | 16.5 | 7.9 | 450 | 140 | 66 | 70 | 130 | 2.7 |

| DATE | POTAS-SIUM. DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE. DIS-SOLVED (MG/L AS CL) | FLUO-RIDE. DIS-SOLVED (MG/L AS F) | SILICA. DIS-SOLVED (MG/L AS SIO2) | SOLIDS. SUM OF CONSTI-TUENTS. DIS-SOLVED (MG/L) | SOLIDS. DIS-SOLVED (TONS PER AC-FT) | NITRO-GEN. NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN. AMMONIA TOTAL (MG/L AS N) | NITRO-GEN. ORGANIC TOTAL (MG/L AS N) | NITRO-GEN.AM-MONIA + ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 09... | 3.5 | 350 | 620 | 6.9 | .3 | 17 | 1220 | 1.66 | .53 | .010 | .78 | .79 |
| DEC | | | | | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | | |
| 24... | 3.3 | 440 | 800 | 8.4 | .3 | 20 | 1570 | 2.14 | .54 | .020 | .38 | .40 |
| MAR | | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 2.5 | 270 | 290 | 3.6 | .4 | 19 | 684 | .93 | .62 | .070 | .91 | .98 |
| JUL | | | | | | | | | | | | |
| 07... | 2.4 | 310 | 420 | 5.5 | .4 | 18 | 899 | 1.22 | .58 | .040 | .96 | 1.0 |

| DATE | NITRO-GEN. TOTAL (MG/L AS N) | PHOS-PHORUS. TOTAL (MG/L AS P) | BORON. DIS-SOLVED (UG/L AS B) | IRON. DIS-SOLVED (UG/L AS FE) | CARBON. ORGANIC TOTAL (MG/L AS C) | CARBON. ORGANIC DIS-SOLVED (MG/L AS C) | CYANIDE TOTAL (MG/L AS CN) | PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M | PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M | CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) | CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) | BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 09... | 1.3 | .020 | 110 | 10 | 6.2 | 10 | .00 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | .080 | .080 | .000 | .000 | -- |
| JAN | | | | | | | | | | | | |
| 24... | .94 | .040 | 120 | 10 | 8.9 | 6.0 | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | 7.17 | 7.56 | .360 | .000 | 1083 |
| APR | | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 1.6 | .190 | 90 | 20 | 18 | 13 | .00 | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | |
| 07... | 1.6 | .020 | 80 | <10 | 24 | 13 | -- | 66.2 | 70.6 | 17.2 | 6.81 | 256 |

## 09095400 DRY FORK NEAR DEBEQUE--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, TOTAL RECOVERABLE (UG/L AS BA) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | CHROMIUM, DISSOLVED (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 09... | -- | 20 | 4 | 4 | 200 | 40 | 0 | <1 | 2 | 4 | 10 | 0 |
| MAY | | | | | | | | | | | | |
| 08... | 6500 | 60 | 7 | 6 | 300 | 300 | 0 | <1 | 1 | <1 | 0 | 0 |

| DATE | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | COPPER, DISSOLVED (UG/L AS CU) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | LEAD, DISSOLVED (UG/L AS PB) | LITHIUM TOTAL RECOVERABLE (UG/L AS LI) | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MERCURY DISSOLVED (UG/L AS HG) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 09... | 3 | <3 | 0 | 0 | 26 | 53 | 40 | 40 | 30 | 20 | .0 | .0 |
| MAY | | | | | | | | | | | | |
| 08... | 2 | <3 | 11 | 2 | 66 | 0 | 50 | 30 | 170 | 10 | .0 | .1 |

| DATE | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SELENIUM, DISSOLVED (UG/L AS SE) | STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 09... | 17 | 19 | 8 | 1 | 2 | 2 | 1600 | 1600 | 2.0 | 0 | <3 |
| MAY | | | | | | | | | | | |
| 08... | 31 | 39 | 11 | 1 | 4 | 4 | 900 | 970 | 8.0 | 50 | 10 |

### SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM | SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | | |
| 24... | 1400 | 2.2 | 132 | .78 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | | |
| 04... | 1200 | 5.7 | 16 | .22 | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 10... | 1200 | 8.2 | 1320 | 29 | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | 1630 | 10 | 3120 | 84 | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | 1040 | 29 | 10400 | 824 | 51 | 32 | 51 | 72 | 83 | 96 | 100 | -- |
| MAY | | | | | | | | | | | | |
| 01... | 1600 | 41 | 7760 | 857 | 24 | 31 | 58 | 80 | 86 | 95 | 100 | -- |
| 09... | 1530 | 85 | 15500 | 3790 | 27 | 35 | 65 | 88 | 93 | 98 | 100 | -- |
| 19... | 1130 | 65 | 8110 | 1420 | 26 | 33 | 61 | 86 | 91 | 95 | 99 | 100 |
| JUN | | | | | | | | | | | | |
| 04... | 1445 | 47 | 3090 | 391 | 19 | 29 | 57 | 85 | 90 | 95 | 100 | 100 |
| JUL | | | | | | | | | | | | |
| 07... | 1200 | 17 | 426 | 19 | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | 1400 | 16 | 518 | 22 | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 29... | 0900 | 6.1 | 13 | .21 | -- | -- | -- | -- | -- | -- | -- | -- |

## 09095500 COLORADO RIVER NEAR CAMEO, CO

LOCATION.--Lat 39°14'20", long 108°16'00", in SW¼SW¼ sec.30, T.9 S., R.97 W., Mesa County, Hydrologic Unit 14010006, on left bank 100 ft (30 m) north of U.S. Highways 6 and 24, 0.5 mi (0.8 km) upstream from Jackson Canyon, 5.9 mi (9.5 km) upstream from Grand Valley project diversion dam, and 7 mi (11 km) northeast of Cameo.

DRAINAGE AREA.--8,050 mi² (20,850 km²), approximately.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WRD Colo. 1973: 1970.

GAGE.--Water-stage recorder. Datum of gage is 4,813.73 ft (1,467.225 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 10, 1934, nonrecording gage on river and water-stage recorder on Highline Canal, about 10 mi (16 km) downstream at different datum. Oct. 10, 1934, to Feb. 27, 1958, water-stage recorder at site 3.0 mi (4.8 km) downstream at datum 22.55 ft (6.873 m) lower.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversion for irrigation of about 160,000 acres (648 km²).

AVERAGE DISCHARGE.--47 years, 3,819 ft³/s (108.2 m³/s), 2,767,000 acre-ft/yr (3,412 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft³/s (1,020 m³/s) June 16, 1935, gage height, 10.91 ft (3.325 m), site and datum then in use; maximum gage height, 11.60 ft (3.536 m) June 8, 1952, site and datum then in use; minimum daily discharge, 700 ft³/s (19.8 m³/s) Dec. 29, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,500 ft³/s (581 m³/s) at 2200 June 12, gage height, 10.07 ft (3.069 m); minimum daily, 1,600 ft³/s (45.3 m³/s) Jan. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2040 | 2280 | 1740 | 1740 | 1630 | 1970 | 2210 | 6780 | 13000 | 9290 | 2750 | 2180 |
| 2 | 2040 | 2220 | 1770 | 1870 | 1690 | 1930 | 2150 | 6590 | 12900 | 9470 | 2720 | 2160 |
| 3 | 2000 | 2240 | 1920 | 1900 | 1800 | 1900 | 2210 | 6560 | 12600 | 9720 | 2660 | 2060 |
| 4 | 1970 | 2150 | 2060 | 1850 | 1860 | 1930 | 2150 | 6660 | 13200 | 9260 | 2620 | 1990 |
| 5 | 1990 | 2150 | 2240 | 1820 | 1850 | 1960 | 2160 | 7120 | 14300 | 6410 | 2540 | 2080 |
| 6 | 1990 | 2210 | 2240 | 1820 | 1800 | 2020 | 2200 | 7760 | 15800 | 7600 | 2500 | 2120 |
| 7 | 2020 | 2180 | 2220 | 1850 | 1810 | 2140 | 2240 | 8680 | 16500 | 6920 | 2440 | 2080 |
| 8 | 2020 | 2210 | 2120 | 1810 | 1800 | 2100 | 2240 | 9720 | 16200 | 6640 | 2360 | 1990 |
| 9 | 2040 | 2220 | 2200 | 1730 | 1690 | 2000 | 2160 | 10600 | 16400 | 6560 | 2340 | 1930 |
| 10 | 2080 | 2210 | 2090 | 1850 | 1630 | 1960 | 2180 | 10800 | 17600 | 6200 | 2320 | 2080 |
| 11 | 2090 | 2180 | 2060 | 1860 | 1620 | 1930 | 2260 | 10500 | 19000 | 5890 | 2200 | 2240 |
| 12 | 2090 | 2160 | 2140 | 1730 | 1660 | 1960 | 2270 | 11300 | 19900 | 5630 | 2150 | 2300 |
| 13 | 2140 | 2150 | 1900 | 1780 | 1720 | 1940 | 2220 | 10700 | 20000 | 5720 | 2120 | 2280 |
| 14 | 2150 | 2100 | 1710 | 2030 | 1890 | 1900 | 2260 | 9500 | 19300 | 5700 | 2120 | 2220 |
| 15 | 2150 | 2100 | 1720 | 2100 | 2440 | 1930 | 2330 | 8700 | 18100 | 5240 | 2300 | 2180 |
| 16 | 2160 | 2000 | 1850 | 1970 | 2360 | 1990 | 2440 | 8280 | 16700 | 4890 | 2660 | 2060 |
| 17 | 2160 | 2080 | 2030 | 1860 | 2120 | 1970 | 2600 | 9290 | 15700 | 4600 | 2640 | 1970 |
| 18 | 2160 | 2120 | 2150 | 1820 | 2150 | 1920 | 2570 | 9530 | 15300 | 4360 | 2540 | 2040 |
| 19 | 2090 | 2200 | 2090 | 1800 | 2560 | 1930 | 2810 | 8900 | 15300 | 4160 | 2420 | 1970 |
| 20 | 2060 | 2210 | 1970 | 1760 | 2570 | 1970 | 3080 | 8870 | 15000 | 4020 | 2300 | 1990 |
| 21 | 2160 | 2200 | 1970 | 1740 | 2180 | 1990 | 3420 | 9920 | 14300 | 3840 | 2210 | 2030 |
| 22 | 2270 | 2100 | 2000 | 1720 | 2180 | 2080 | 3900 | 11700 | 13700 | 3640 | 2150 | 2030 |
| 23 | 2300 | 1990 | 2000 | 1680 | 2160 | 2150 | 4420 | 14400 | 13200 | 3490 | 2180 | 1990 |
| 24 | 2300 | 1920 | 2000 | 1600 | 2080 | 2120 | 4720 | 16200 | 13000 | 3400 | 2260 | 2020 |
| 25 | 2300 | 2000 | 1890 | 1630 | 1940 | 2200 | 4680 | 15700 | 12800 | 3290 | 2320 | 2020 |
| 26 | 2300 | 2220 | 1900 | 1730 | 1870 | 2240 | 4780 | 14300 | 12400 | 3280 | 2380 | 1940 |
| 27 | 2300 | 2200 | 1850 | 1780 | 1890 | 2150 | 4930 | 13200 | 12300 | 3190 | 2450 | 1920 |
| 28 | 2300 | 2080 | 1870 | 1780 | 1930 | 2150 | 5200 | 12600 | 11800 | 3060 | 2400 | 1920 |
| 29 | 2300 | 1930 | 1860 | 1820 | 1940 | 2140 | 5580 | 12800 | 10400 | 3110 | 2320 | 1920 |
| 30 | 2300 | 1810 | 1820 | 1780 | --- | 2140 | 6680 | 12800 | 9320 | 2860 | 2270 | 1830 |
| 31 | 2300 | --- | 1710 | 1720 | --- | 2160 | --- | 12600 | --- | 2800 | 2180 | --- |
| TOTAL | 66570 | 63820 | 61090 | 55930 | 56820 | 62870 | 95050 | 323060 | 446020 | 166240 | 73820 | 61560 |
| MEAN | 2147 | 2127 | 1971 | 1804 | 1959 | 2028 | 3168 | 10420 | 14870 | 5363 | 2381 | 2052 |
| MAX | 2300 | 2280 | 2240 | 2100 | 2570 | 2240 | 6680 | 16200 | 20000 | 9720 | 2750 | 2300 |
| MIN | 1970 | 1810 | 1710 | 1600 | 1620 | 1900 | 2150 | 6560 | 9320 | 2800 | 2120 | 1830 |
| AC-FT | 132000 | 126600 | 121200 | 110900 | 112700 | 124700 | 188500 | 640800 | 884700 | 329700 | 146400 | 122100 |

CAL YR 1979 TOTAL 1590280 MEAN 4357 MAX 20900 MIN 1130 AC-FT 3154000
WTR YR 1980 TOTAL 1532850 MEAN 4188 MAX 20000 MIN 1600 AC-FT 3040000

## 09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1933 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1935 to current year.
WATER TEMPERATURES: April 1949 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,970 micromhos Jan. 19, 1940; minimum daily, 235 micromhos May 26, 1936.
WATER TEMPERATURES: Maximum, 24°C Aug. 16, 1962; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,150 micromhos Mar. 6; minimum daily, 260 micromhos June 12.
WATER TEMPERATURES: Maximum daily, 22.0°C Aug. 9-15; minimum daily observed, 1.0°C December 10.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | OXYGEN, DISSOLVED (MG/L) | NITROGEN, DISSOLVED (MG/L AS N) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 11... | 1400 | 1970 | 1120 | 8.2 | 13.5 | 9.5 | -- | 250 | 110 | 71 | 17 |
| NOV 14... | 1400 | 1960 | 1110 | 8.3 | 4.5 | 11.6 | -- | 270 | 120 | 75 | 20 |
| DEC 10... | 1100 | 1950 | 975 | 8.3 | 1.0 | 12.2 | -- | 260 | 110 | 72 | 19 |
| JAN 21... | 1200 | 1660 | 1100 | 8.6 | 2.0 | 13.4 | .83 | 260 | 120 | 71 | 19 |
| MAR 06... | 1200 | 1750 | 1150 | 8.2 | 6.0 | 11.3 | .72 | 260 | 110 | 72 | 20 |
| MAY 27... | 1200 | 12900 | 350 | 8.0 | 9.5 | 9.2 | 2.7 | 130 | 35 | 35 | 10 |
| JUL 10... | 1100 | 6170 | 520 | 8.3 | 18.0 | 8.4 | .46 | -- | -- | -- | -- |

| DATE | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 11... | 130 | 3.6 | 4.7 | 140 | 140 | 190 | .3 | 8.1 | 646 | .88 | 3440 |
| NOV 14... | 130 | 3.4 | 4.0 | 150 | 170 | 160 | .3 | 8.1 | 658 | .89 | 3480 |
| DEC 10... | 120 | 3.3 | 3.9 | 150 | 140 | 160 | .2 | 8.4 | 615 | .84 | 3240 |
| JAN 21... | 130 | 3.5 | 4.2 | 140 | 130 | 190 | .3 | 7.7 | 637 | .87 | 2860 |
| MAR 06... | 140 | 3.8 | 4.1 | 150 | 170 | 180 | .3 | 8.4 | 686 | .93 | 3240 |
| MAY 27... | 29 | 1.1 | 1.5 | 94 | 51 | 23 | .2 | 10 | 217 | .30 | 7560 |
| JUL 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

## 09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) | NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 11... | -- | .08 | -- | -- | -- | -- | -- | .000 | <10 | 4 |
| NOV | | | | | | | | | | |
| 14... | -- | .14 | -- | -- | -- | -- | -- | .010 | <10 | 8 |
| DEC | | | | | | | | | | |
| 10... | -- | .21 | -- | -- | -- | -- | -- | .010 | 10 | 9 |
| JAN | | | | | | | | | | |
| 21... | .24 | .24 | .74 | .15 | .59 | .98 | .030 | .010 | 10 | 20 |
| MAR | | | | | | | | | | |
| 06... | .23 | .23 | .56 | .07 | .49 | .79 | .110 | .010 | 10 | 20 |
| MAY | | | | | | | | | | |
| 27... | .25 | .24 | -- | .00 | 2.5 | -- | .330 | .020 | 60 | 7 |
| JUL | | | | | | | | | | |
| 10... | .12 | .07 | .40 | .01 | .39 | .52 | .020 | .010 | -- | -- |

| DATE | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DIS-SOLVED (UG/L AS AS) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | COPPER, DIS-SOLVED (UG/L AS CU) |
|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | |
| 21... | 0 | 0 | 0 | 2 | 0 | 0 | 16 | 0 |
| MAR | | | | | | | | |
| 06... | 12 | 1 | 2 | <1 | 28 | 0 | 8 | 0 |
| MAY | | | | | | | | |
| 27... | 4 | 1 | 0 | <1 | 3 | 0 | 15 | 3 |
| JUL | | | | | | | | |
| 10... | 1 | 2 | 0 | 0 | 22 | 0 | 15 | 1 |

| DATE | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | LEAD, DIS-SOLVED (UG/L AS PB) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, TOTAL (UG/L AS SE) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | ZINC, DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | |
| 21... | 6 | 0 | .0 | .0 | 1 | 1 | 10 | <3 |
| MAR | | | | | | | | |
| 06... | 5 | 0 | .0 | .0 | 2 | 2 | 30 | <3 |
| MAY | | | | | | | | |
| 27... | 15 | 3 | .0 | .0 | 1 | 1 | 80 | 7 |
| JUL | | | | | | | | |
| 10... | 41 | 2 | .0 | .0 | 1 | 0 | 20 | 0 |

## 09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | --- | | --- | | --- | 360 | 400 | 800 | 975 |
| 2 | --- | --- | --- | --- | | --- | | --- | 350 | 400 | 825 | 975 |
| 3 | --- | --- | --- | --- | | --- | | --- | 360 | 400 | 850 | 1000 |
| 4 | --- | --- | --- | --- | | --- | | --- | 380 | 450 | 850 | 1050 |
| 5 | --- | --- | --- | --- | | --- | | --- | 340 | 475 | 900 | 1100 |
| 6 | --- | --- | --- | --- | | 1150 | | --- | 330 | 475 | 900 | 1100 |
| 7 | --- | --- | --- | --- | | --- | | --- | 300 | 500 | 950 | 1100 |
| 8 | --- | --- | --- | --- | | --- | | --- | 300 | 500 | 975 | 1100 |
| 9 | --- | --- | --- | --- | | --- | | --- | 290 | 500 | 975 | 1100 |
| 10 | --- | --- | 975 | --- | | --- | | --- | 290 | 500 | 975 | 1100 |
| 11 | 1120 | --- | --- | --- | | --- | | --- | 280 | 500 | 975 | 1080 |
| 12 | --- | --- | --- | --- | | --- | | --- | 260 | 515 | 1000 | 1030 |
| 13 | --- | --- | --- | --- | | --- | | --- | 270 | 515 | 1000 | 1030 |
| 14 | --- | 1110 | --- | --- | | --- | | --- | 270 | 500 | 1000 | 1030 |
| 15 | --- | --- | --- | --- | | --- | | --- | 280 | 500 | 1000 | 1000 |
| 16 | --- | --- | --- | --- | | --- | | --- | 280 | 525 | 975 | 1000 |
| 17 | --- | --- | --- | --- | | --- | | --- | 300 | 550 | 950 | 1000 |
| 18 | --- | --- | --- | --- | | --- | | --- | 300 | 575 | 900 | 1000 |
| 19 | --- | --- | --- | --- | | --- | | --- | 300 | 600 | 900 | 1000 |
| 20 | --- | --- | --- | --- | | --- | | --- | 300 | 600 | 900 | 1000 |
| 21 | --- | --- | --- | 1100 | | --- | | --- | 300 | 650 | 900 | 1000 |
| 22 | --- | --- | --- | --- | | --- | | --- | 330 | 700 | 900 | 1000 |
| 23 | --- | --- | --- | --- | | --- | | --- | 340 | 725 | 900 | 1000 |
| 24 | --- | --- | --- | --- | | --- | | --- | 330 | 750 | 950 | 1000 |
| 25 | --- | --- | --- | --- | | --- | | --- | 330 | 775 | 950 | 1000 |
| 26 | --- | --- | --- | --- | | --- | | --- | 330 | 775 | 975 | 1000 |
| 27 | --- | --- | --- | --- | | --- | | 360 | 340 | 775 | 950 | 1030 |
| 28 | --- | --- | --- | --- | | --- | | 370 | 350 | 775 | 950 | 1030 |
| 29 | --- | --- | --- | --- | | --- | | 380 | 375 | 775 | 950 | 1030 |
| 30 | --- | --- | --- | --- | | --- | | 360 | 375 | 800 | 975 | --- |
| 31 | --- | --- | --- | --- | | --- | | 360 | --- | 800 | --- | --- |

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | --- | | --- | | --- | 11.0 | 17.0 | 20.0 | 16.0 |
| 2 | --- | --- | --- | --- | | --- | | --- | 10.0 | 16.0 | 20.0 | 16.0 |
| 3 | --- | --- | --- | --- | | --- | | --- | 11.0 | 16.0 | 20.0 | 16.0 |
| 4 | --- | --- | --- | --- | | --- | | --- | 14.0 | 16.0 | 20.0 | 17.0 |
| 5 | --- | --- | --- | --- | | --- | | --- | 13.0 | 16.0 | 20.0 | 18.0 |
| 6 | --- | --- | --- | --- | | 6.0 | | --- | 13.0 | 17.0 | 20.0 | 18.0 |
| 7 | --- | --- | --- | --- | | --- | | --- | 12.0 | 17.0 | 21.0 | 18.0 |
| 8 | --- | --- | --- | --- | | --- | | --- | 12.0 | 17.0 | 21.0 | 18.0 |
| 9 | --- | --- | --- | --- | | --- | | --- | 13.0 | 18.0 | 22.0 | 18.0 |
| 10 | --- | --- | 1.0 | --- | | --- | | --- | 13.0 | 19.0 | 22.0 | 18.0 |
| 11 | 13.5 | --- | --- | --- | | --- | | --- | 13.0 | 20.0 | 22.0 | 17.0 |
| 12 | --- | --- | --- | --- | | --- | | --- | 13.0 | 20.0 | 22.0 | 16.0 |
| 13 | --- | --- | --- | --- | | --- | | --- | 12.0 | 20.0 | 22.0 | 16.0 |
| 14 | --- | 4.5 | --- | --- | | --- | | --- | 12.0 | 18.0 | 22.0 | 16.0 |
| 15 | --- | --- | --- | --- | | --- | | --- | 11.0 | 19.0 | 22.0 | 16.0 |
| 16 | --- | --- | --- | --- | | --- | | --- | 11.0 | 19.0 | 21.0 | 16.0 |
| 17 | --- | --- | --- | --- | | --- | | --- | 12.0 | 20.0 | 20.0 | 16.0 |
| 18 | --- | --- | --- | --- | | --- | | --- | 13.0 | 20.0 | 20.0 | 16.0 |
| 19 | --- | --- | --- | --- | | --- | | --- | 13.0 | 20.0 | 19.0 | 16.0 |
| 20 | --- | --- | --- | --- | | --- | | --- | 13.0 | 20.0 | 18.0 | 15.0 |
| 21 | --- | --- | --- | 2.0 | | --- | | --- | 13.0 | 20.0 | 17.0 | 15.0 |
| 22 | --- | --- | --- | --- | | --- | | --- | 12.0 | 21.0 | 17.0 | 14.0 |
| 23 | --- | --- | --- | --- | | --- | | --- | 12.0 | 21.0 | 17.0 | 13.0 |
| 24 | --- | --- | --- | --- | | --- | | --- | 13.0 | 20.0 | 18.0 | 13.0 |
| 25 | --- | --- | --- | --- | | --- | | --- | 14.0 | 20.0 | 18.0 | 13.0 |
| 26 | --- | --- | --- | --- | | --- | | --- | 15.0 | 19.0 | 18.0 | 13.0 |
| 27 | --- | --- | --- | --- | | --- | | 12.0 | 15.0 | 20.0 | 17.0 | 14.0 |
| 28 | --- | --- | --- | --- | | --- | | 11.0 | 16.0 | 20.0 | 17.0 | 14.0 |
| 29 | --- | --- | --- | --- | | --- | | 11.0 | 16.0 | 20.0 | 17.0 | 14.0 |
| 30 | --- | --- | --- | --- | | --- | | 11.0 | 16.0 | 21.0 | 16.0 | --- |
| 31 | --- | --- | --- | --- | | --- | | 11.0 | --- | 21.0 | --- | --- |

## 09095526 GOVERNMENT HIGHLINE CANAL AT 16 ROAD, NEAR LOMA, CO

LOCATION.--Lat 39°15'25", long 108°45'22", in NE¼SE¼ sec.12, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 200 ft (61 m) downstream from county bridge on 16 Road, 0.4 mi (0.6 km) north of Q Road, and 5.1 mi (8.2 km) northeast of Loma.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,740 ft (1,445 m), from topographic map. Prior to Mar. 30, 1976, nonrecording gage at site 200 ft (61 m) upstream at present datum.

REMARKS.--Records good. Government Highline Canal diverts water from the Colorado River in SE¼NW¼ sec.13, T.10 S., R.98 W. Water flowing past this gage is used for irrigation in Reed Wash and Salt Creek basins. Surplus flows are wasted into Reed Wash and Highline Lake. Entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 376 ft³/s (10.6 m³/s) Aug. 20, 1979; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 293 | .00 | .00 | .00 | .00 | .00 | .00 | 226 | 304 | 258 | 270 | 296 |
| 2 | 274 | .00 | .00 | .00 | .00 | .00 | .00 | 224 | 302 | 282 | 280 | 286 |
| 3 | 267 | .00 | .00 | .00 | .00 | .00 | .00 | 221 | 301 | 301 | 280 | 255 |
| 4 | 266 | .00 | .00 | .00 | .00 | .00 | .00 | 225 | 296 | 323 | 280 | 248 |
| 5 | 260 | .00 | .00 | .00 | .00 | .00 | .00 | 233 | 293 | 326 | 260 | 245 |
| 6 | 258 | .00 | .00 | .00 | .00 | .00 | .00 | 219 | 296 | 328 | 250 | 244 |
| 7 | 252 | .00 | .00 | .00 | .00 | .00 | .00 | 228 | 294 | 320 | 250 | 251 |
| 8 | 242 | .00 | .00 | .00 | .00 | .00 | .00 | 241 | 286 | 323 | 250 | 251 |
| 9 | 233 | .00 | .00 | .00 | .00 | .00 | .00 | 246 | 282 | 323 | 240 | 255 |
| 10 | 232 | .00 | .00 | .00 | .00 | .00 | .00 | 262 | 290 | 291 | 240 | 273 |
| 11 | 234 | .00 | .00 | .00 | .00 | .00 | .00 | 286 | 285 | 282 | 250 | 309 |
| 12 | 237 | .00 | .00 | .00 | .00 | .00 | .00 | 296 | 277 | 291 | 260 | 322 |
| 13 | 250 | .00 | .00 | .00 | .00 | .00 | .00 | 293 | 263 | 301 | 260 | 318 |
| 14 | 250 | .00 | .00 | .00 | .00 | .00 | .00 | 294 | 258 | 310 | 270 | 325 |
| 15 | 250 | .00 | .00 | .00 | .00 | .00 | .00 | 309 | 263 | 306 | 290 | 325 |
| 16 | 260 | .00 | .00 | .00 | .00 | .00 | .00 | 320 | 276 | 288 | 290 | 301 |
| 17 | 270 | .00 | .00 | .00 | .00 | .00 | 60 | 307 | 276 | 288 | 280 | 299 |
| 18 | 260 | .00 | .00 | .00 | .00 | .00 | 254 | 293 | 266 | 282 | 280 | 276 |
| 19 | 286 | .00 | .00 | .00 | .00 | .00 | 256 | 294 | 277 | 269 | 290 | 269 |
| 20 | 293 | .00 | .00 | .00 | .00 | .00 | 236 | 301 | 285 | 255 | 285 | 265 |
| 21 | 306 | .00 | .00 | .00 | .00 | .00 | 218 | 288 | 282 | 239 | 280 | 231 |
| 22 | 320 | .00 | .00 | .00 | .00 | .00 | 213 | 273 | 276 | 225 | 278 | 226 |
| 23 | 360 | .00 | .00 | .00 | .00 | .00 | 238 | 265 | 278 | 226 | 251 | 220 |
| 24 | 371 | .00 | .00 | .00 | .00 | .00 | 270 | 256 | 272 | 251 | 266 | 231 |
| 25 | 369 | .00 | .00 | .00 | .00 | .00 | 276 | 263 | 274 | 265 | 262 | 225 |
| 26 | 273 | .00 | .00 | .00 | .00 | .00 | 251 | 262 | 259 | 286 | 286 | 225 |
| 27 | 97 | .00 | .00 | .00 | .00 | .00 | 232 | 244 | 259 | 296 | 307 | 216 |
| 28 | 6.2 | .00 | .00 | .00 | .00 | .00 | 214 | 260 | 260 | 298 | 290 | 210 |
| 29 | .90 | .00 | .00 | .00 | .00 | .00 | 215 | 306 | 256 | 280 | 280 | 210 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | 226 | 317 | 256 | 270 | 288 | 210 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 312 | --- | 270 | 290 | --- |
| TOTAL | 7290.10 | .00 | .00 | .00 | .00 | .00 | 3159.00 | 8364 | 8342 | 8853 | 8433 | 7817 |
| MEAN | 235 | .000 | .000 | .000 | .000 | .000 | 105 | 270 | 278 | 286 | 272 | 261 |
| MAX | 371 | .00 | .00 | .00 | .00 | .00 | 276 | 320 | 304 | 328 | 307 | 325 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 219 | 256 | 225 | 240 | 210 |
| AC-FT | 14460 | .00 | .00 | .00 | .00 | .00 | 6270 | 16590 | 16550 | 17560 | 16730 | 15510 |

CAL YR 1979 TOTAL 55236.30 MEAN 151 MAX 376 MIN .00 AC-FT 109600
WTR YR 1980 TOTAL 52258.10 MEAN 143 MAX 371 MIN .00 AC-FT 103700

## 09095528 LATERAL NO. 46 NEAR MACK, CO

LOCATION.--Lat 39°16'17", long 108°49'59", in NE¼SE¼ sec.5, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on left bank 400 ft (120 m) downstream from headgate on Government Highline Canal and 3.7 mi (6.0 km) north of Mack.

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 4,720 ft (1,439 m), from topographic map.

REMARKS.--Records good. Water is used for irrigation of lands below gage along Mack wash and Reed wash. One small ditch diverts water about 10 ft (3 m) above gage. Entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 47 ft³/s (1.33 m³/s) Sept. 2, 1976; no flow many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | .00 | .00 | .00 | .00 | .00 | .00 | 30 | 28 | 37 | 40 | 29 |
| 2 | 20 | .00 | .00 | .00 | .00 | .00 | .00 | 28 | 28 | 34 | 41 | 31 |
| 3 | 20 | .00 | .00 | .00 | .00 | .00 | .00 | 36 | 30 | 34 | 41 | 33 |
| 4 | 21 | .00 | .00 | .00 | .00 | .00 | .00 | 41 | 32 | 35 | 39 | 31 |
| 5 | 20 | .00 | .00 | .00 | .00 | .00 | .00 | 39 | 38 | 31 | 37 | 30 |
| 6 | 20 | .00 | .00 | .00 | .00 | .00 | .00 | 42 | 40 | 30 | 38 | 31 |
| 7 | 20 | .00 | .00 | .00 | .00 | .00 | .00 | 41 | 41 | 34 | 42 | 31 |
| 8 | 24 | .00 | .00 | .00 | .00 | .00 | .00 | 40 | 42 | 37 | 44 | 32 |
| 9 | 24 | .00 | .00 | .00 | .00 | .00 | .00 | 42 | 40 | 38 | 45 | 30 |
| 10 | 23 | .00 | .00 | .00 | .00 | .00 | .00 | 38 | 36 | 37 | 46 | 29 |
| 11 | 23 | .00 | .00 | .00 | .00 | .00 | .00 | 38 | 34 | 37 | 46 | 22 |
| 12 | 23 | .00 | .00 | .00 | .00 | .00 | .00 | 32 | 34 | 37 | 45 | 17 |
| 13 | 25 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | 32 | 37 | 44 | 18 |
| 14 | 27 | .00 | .00 | .00 | .00 | .00 | .00 | 17 | 31 | 38 | 43 | 17 |
| 15 | 27 | .00 | .00 | .00 | .00 | .00 | .00 | 17 | 38 | 34 | 40 | 17 |
| 16 | 26 | .00 | .00 | .00 | .00 | .00 | .00 | 20 | 36 | 31 | 38 | 17 |
| 17 | 28 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 39 | 33 | 36 | 17 |
| 18 | 28 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 41 | 34 | 35 | 17 |
| 19 | 28 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 41 | 33 | 36 | 19 |
| 20 | 28 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 42 | 31 | 39 | 21 |
| 21 | 28 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 44 | 33 | 41 | 21 |
| 22 | 28 | .00 | .00 | .00 | .00 | .00 | .00 | 21 | 43 | 34 | 40 | 21 |
| 23 | 22 | .00 | .00 | .00 | .00 | .00 | .00 | 20 | 43 | 35 | 41 | 21 |
| 24 | 20 | .00 | .00 | .00 | .00 | .00 | .00 | 23 | 43 | 37 | 42 | 21 |
| 25 | 21 | .00 | .00 | .00 | .00 | .00 | 13 | 25 | 44 | 37 | 42 | 23 |
| 26 | 21 | .00 | .00 | .00 | .00 | .00 | 19 | 25 | 43 | 38 | 37 | 24 |
| 27 | 19 | .00 | .00 | .00 | .00 | .00 | 21 | 26 | 43 | 40 | 35 | 24 |
| 28 | 11 | .00 | .00 | .00 | .00 | .00 | 21 | 29 | 43 | 40 | 32 | 23 |
| 29 | .13 | .00 | .00 | .00 | .00 | .00 | 29 | 28 | 43 | 39 | 30 | 22 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | 32 | 26 | 42 | 39 | 30 | 21 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 27 | --- | 39 | 30 | --- |
| TOTAL | 645.13 | .00 | .00 | .00 | .00 | .00 | 135.00 | 878 | 1154 | 1103 | 1215 | 710 |
| MEAN | 20.8 | .000 | .000 | .000 | .000 | .000 | 4.50 | 28.3 | 38.5 | 35.6 | 39.2 | 23.7 |
| MAX | 28 | .00 | .00 | .00 | .00 | .00 | 32 | 42 | 44 | 40 | 46 | 33 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 17 | 28 | 30 | 30 | 17 |
| AC-FT | 1280 | .00 | .00 | .00 | .00 | .00 | 268 | 1740 | 2290 | 2190 | 2410 | 1410 |

CAL YR 1979 TOTAL 5865.73 MEAN 16.1 MAX 46 MIN .00 AC-FT 11630
WTR YR 1980 TOTAL 5840.13 MEAN 16.0 MAX 46 MIN .00 AC-FT 11580

## 09095529 CAMP NO. 7 SPILLWAY NEAR MACK, CO

LOCATION.--Lat 39°16'22", long 108°49'56", in NE¼SE¼ sec.5, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank at dam on spillway, 10 ft (3 m) downstream from headgates on Government Highline Canal, and 3.7 mi (6.0 km) north of Mack.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder and concrete weir. Altitude of gage is 4,720 ft (1,439 m), from topographic map. Prior to Mar. 30, 1976, nonrecording gage at present site and datum.

REMARKS.--Records fair. Government Highline Canal diverts from Colorado River in SW¼NW¼ sec.13, T.10 S., R.98 W. Water flowing past this gage is waste water into Highline Lake. Flow is regulated by a diversion gate.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 121 ft³/s (3.43 m³/s) Apr. 7, 1976; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 67 | .00 | .00 | .00 | .00 | .00 | .00 | 34 | 41 | .00 | .00 | 40 |
| 2 | 65 | .00 | .00 | .00 | .00 | .00 | .00 | 27 | 38 | .00 | .00 | 11 |
| 3 | 65 | .00 | .00 | .00 | .00 | .00 | .00 | 18 | 37 | .18 | .00 | 2.0 |
| 4 | 65 | .00 | .00 | .00 | .00 | .00 | .00 | 19 | 33 | 1.3 | .00 | .89 |
| 5 | 59 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | 10 | 33 | .00 | .57 |
| 6 | 58 | .00 | .00 | .00 | .00 | .00 | .00 | 6.9 | 2.0 | 39 | .00 | .71 |
| 7 | 56 | .00 | .00 | .00 | .00 | .00 | .00 | 8.1 | .15 | 38 | .00 | 1.1 |
| 8 | 49 | .00 | .00 | .00 | .00 | .00 | .00 | 28 | .00 | 38 | .00 | 1.3 |
| 9 | 42 | .00 | .00 | .00 | .00 | .00 | .00 | 32 | .00 | 32 | .00 | 1.9 |
| 10 | 43 | .00 | .00 | .00 | .00 | .00 | .00 | 35 | .00 | 10 | .00 | 2.8 |
| 11 | 47 | .00 | .00 | .00 | .00 | .00 | .00 | 47 | .00 | 3.0 | .00 | 10 |
| 12 | 47 | .00 | .00 | .00 | .00 | .00 | .00 | 56 | .00 | 5.0 | .00 | 36 |
| 13 | 48 | .00 | .00 | .00 | .00 | .00 | .00 | 64 | .00 | 13 | .00 | 90 |
| 14 | 49 | .00 | .00 | .00 | .00 | .00 | .00 | 74 | .00 | 32 | .00 | 80 |
| 15 | 55 | .00 | .00 | .00 | .00 | .00 | .00 | 94 | .00 | 28 | .00 | 68 |
| 16 | 56 | .00 | .00 | .00 | .00 | .00 | .00 | 100 | .00 | 28 | .25 | 61 |
| 17 | 61 | .00 | .00 | .00 | .00 | .00 | 29 | 80 | .00 | 28 | 4.1 | 53 |
| 18 | 61 | .00 | .00 | .00 | .00 | .00 | 104 | 72 | .00 | 3.0 | 6.8 | 44 |
| 19 | 61 | .00 | .00 | .00 | .00 | .00 | 97 | 76 | .00 | .00 | .14 | 31 |
| 20 | 63 | .00 | .00 | .00 | .00 | .00 | 95 | 66 | .00 | .00 | .46 | 20 |
| 21 | 62 | .00 | .00 | .00 | .00 | .00 | 77 | 60 | .00 | .00 | .51 | 18 |
| 22 | 74 | .00 | .00 | .00 | .00 | .00 | 71 | 50 | .00 | .00 | .31 | 16 |
| 23 | 98 | .00 | .00 | .00 | .00 | .00 | 81 | 37 | .00 | .00 | .27 | 20 |
| 24 | 103 | .00 | .00 | .00 | .00 | .00 | 83 | 28 | .00 | .00 | .28 | 23 |
| 25 | 102 | .00 | .00 | .00 | .00 | .00 | 76 | 30 | .00 | .00 | .26 | 22 |
| 26 | 81 | .00 | .00 | .00 | .00 | .00 | 66 | 24 | .00 | .00 | 26 | 20 |
| 27 | 11 | .00 | .00 | .00 | .00 | .00 | 23 | 19 | .00 | .15 | 40 | 19 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | 25 | 28 | .00 | .30 | 26 | 18 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | 29 | 49 | .00 | .00 | 30 | 19 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | 29 | 45 | .00 | .00 | 38 | 19 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 43 | --- | .00 | 48 | --- |
| TOTAL | 1645.00 | .00 | .00 | .00 | .00 | .00 | 885.00 | 1374.0 | 161.15 | 331.93 | 221.38 | 749.27 |
| MEAN | 53.1 | .000 | .000 | .000 | .000 | .000 | 29.5 | 44.3 | 5.37 | 10.7 | 7.14 | 25.0 |
| MAX | 103 | .00 | .00 | .00 | .00 | .00 | 104 | 100 | 41 | 39 | 48 | 90 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.9 | .00 | .00 | .00 | .57 |
| AC-FT | 3260 | .00 | .00 | .00 | .00 | .00 | 1760 | 2730 | 320 | 658 | 439 | 1490 |

CAL YR 1979 TOTAL 6168.34 MEAN 16.9 MAX 119 MIN .00 AC-FT 12230
WTR YR 1980 TOTAL 5367.73 MEAN 14.7 MAX 104 MIN .00 AC-FT 10650

## 09095530 GOVERNMENT HIGHLINE CANAL NEAR MACK, CO

LOCATION.--Lat 39°17'09", long 108°49'46", in NE¼SE¼ sec.12, T.9 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 50 ft (15 m) upstream from flume over Mack Wash, 1.1 mi (1.8 km) downstream from headgate of Lateral No. 48, and 4.6 mi (7.4 km) north of Mack.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,717 ft (1,438 m), from topographic map.

REMARKS.--Records good. Government Highline Canal diverts water from the Colorado River in SE¼NW¼ sec.13, T.10 S., R.98 W. Water flowing past this gage is used for irrigation in Salt Creek basin. Surplus flows are wasted into West Salt Creek and Badger Wash. Water can be wasted into Mack Wash from flume below gage. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 168 ft³/s (4.76 m³/s) July 25, 1979; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 127 | .00 | .00 | .00 | .00 | .00 | .00 | 81 | 146 | 140 | 149 | 155 |
| 2 | 127 | .00 | .00 | .00 | .00 | .00 | .00 | 102 | 146 | 154 | 154 | 153 |
| 3 | 127 | .00 | .00 | .00 | .00 | .00 | .00 | 111 | 148 | 158 | 155 | 156 |
| 4 | 127 | .00 | .00 | .00 | .00 | .00 | .00 | 111 | 147 | 166 | 154 | 161 |
| 5 | 127 | .00 | .00 | .00 | .00 | .00 | .00 | 110 | 146 | 148 | 143 | 161 |
| 6 | 127 | .00 | .00 | .00 | .00 | .00 | .00 | 111 | 145 | 148 | 137 | 158 |
| 7 | 127 | .00 | .00 | .00 | .00 | .00 | .00 | 114 | 145 | 148 | 136 | 147 |
| 8 | 126 | .00 | .00 | .00 | .00 | .00 | .00 | 111 | 147 | 149 | 138 | 145 |
| 9 | 126 | .00 | .00 | .00 | .00 | .00 | .00 | 114 | 149 | 150 | 137 | 145 |
| 10 | 126 | .00 | .00 | .00 | .00 | .00 | .00 | 123 | 153 | 151 | 136 | 147 |
| 11 | 127 | .00 | .00 | .00 | .00 | .00 | .00 | 117 | 150 | 151 | 140 | 148 |
| 12 | 127 | .00 | .00 | .00 | .00 | .00 | .00 | 126 | 145 | 151 | 141 | 149 |
| 13 | 127 | .00 | .00 | .00 | .00 | .00 | .00 | 130 | 140 | 150 | 147 | 148 |
| 14 | 127 | .00 | .00 | .00 | .00 | .00 | .00 | 130 | 138 | 149 | 153 | 147 |
| 15 | 128 | .00 | .00 | .00 | .00 | .00 | .00 | 123 | 136 | 149 | 164 | 147 |
| 16 | 129 | .00 | .00 | .00 | .00 | .00 | .00 | 113 | 144 | 150 | 159 | 144 |
| 17 | 130 | .00 | .00 | .00 | .00 | .00 | .00 | 114 | 141 | 151 | 151 | 144 |
| 18 | 130 | .00 | .00 | .00 | .00 | .00 | 36 | 121 | 138 | 152 | 153 | 148 |
| 19 | 131 | .00 | .00 | .00 | .00 | .00 | 50 | 120 | 142 | 152 | 161 | 147 |
| 20 | 131 | .00 | .00 | .00 | .00 | .00 | 50 | 119 | 152 | 149 | 165 | 146 |
| 21 | 129 | .00 | .00 | .00 | .00 | .00 | 48 | 118 | 148 | 142 | 165 | 144 |
| 22 | 114 | .00 | .00 | .00 | .00 | .00 | 54 | 124 | 144 | 132 | 159 | 144 |
| 23 | 98 | .00 | .00 | .00 | .00 | .00 | 56 | 135 | 139 | 132 | 152 | 144 |
| 24 | 101 | .00 | .00 | .00 | .00 | .00 | 55 | 134 | 139 | 143 | 158 | 144 |
| 25 | 100 | .00 | .00 | .00 | .00 | .00 | 56 | 134 | 146 | 150 | 158 | 144 |
| 26 | 92 | .00 | .00 | .00 | .00 | .00 | 52 | 134 | 142 | 160 | 160 | 144 |
| 27 | 71 | .00 | .00 | .00 | .00 | .00 | 69 | 133 | 140 | 164 | 158 | 145 |
| 28 | 3.5 | .00 | .00 | .00 | .00 | .00 | 73 | 139 | 139 | 164 | 158 | 144 |
| 29 | .38 | .00 | .00 | .00 | .00 | .00 | 79 | 147 | 137 | 159 | 156 | 144 |
| 30 | .25 | .00 | .00 | .00 | --- | .00 | 76 | 149 | 136 | 151 | 158 | 144 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 148 | --- | 148 | 158 | --- |
| TOTAL | 3263.13 | .00 | .00 | .00 | .00 | .00 | 754.00 | 3796 | 4308 | 4661 | 4715 | 4437 |
| MEAN | 105 | .000 | .000 | .000 | .000 | .000 | 25.1 | 122 | 144 | 150 | 152 | 148 |
| MAX | 131 | .00 | .00 | .00 | .00 | .00 | 79 | 149 | 153 | 166 | 165 | 161 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 81 | 136 | 132 | 136 | 144 |
| AC-FT | 6470 | .00 | .00 | .00 | .00 | .00 | 1500 | 7530 | 8540 | 9250 | 9350 | 8800 |

CAL YR 1979 TOTAL 24910.13 MEAN 68.2 MAX 168 MIN .00 AC-FT 49410
WTR YR 1980 TOTAL 25934.13 MEAN 70.9 MAX 166 MIN .00 AC-FT 51440

## 09095530 GOVERNMENT HIGHLINE CANAL NEAR MACK, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to current year.
WATER TEMPERATURES: August 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since August 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,130 micromhos Oct. 2, 1974; minimum 274 micromhos June 15, 1980.
WATER TEMPERATURE: Maximum, 27.5°C July 30 and Aug. 11, 1978; minimum 1.5°C Apr. 11-14, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,550 micromhos Oct. 14; minimum, 274 micromhos June 15.
WATER TEMPERATURES: Maximum, 28.5°C Aug. 2, 10; minimum, not determined.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | |
| 16... | 0745 | 120 | 1050 | 7.1 | 13.5 | 8.7 | 260 | 120 |
| APR | | | | | | | | |
| 22... | 1250 | 50 | 840 | 7.8 | 16.0 | 8.6 | 220 | 92 |
| JUL | | | | | | | | |
| 16... | 1015 | 148 | 560 | 7.6 | 22.0 | 7.4 | 200 | 86 |

| DATE | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 16... | 77 | 16 | 120 | 3.3 | 4.1 | 140 | 150 | 170 | .3 |
| APR | | | | | | | | | |
| 22... | 61 | 17 | 92 | 2.7 | 3.8 | 130 | 130 | 100 | .3 |
| JUL | | | | | | | | | |
| 16... | 49 | 18 | 78 | 2.4 | 2.4 | 110 | 89 | 65 | .3 |

| DATE | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | |
| 16... | 7.1 | 629 | .86 | 204 | .03 | .000 | 30 | 2 |
| APR | | | | | | | | |
| 22... | 8.9 | 494 | .67 | 67.8 | .55 | .060 | 60 | 2 |
| JUL | | | | | | | | |
| 16... | 7.8 | 377 | .51 | 151 | .39 | .010 | 50 | 4 |

## 09095530 GOVERNMENT HIGHLINE CANAL NEAR MACK, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1120 | | | | | | --- | 576 | 380 | 395 | 910 | 1040 |
| 2 | 1120 | | | | | | --- | 558 | 376 | 411 | 919 | 1040 |
| 3 | 1100 | | | | | | --- | 531 | 372 | 414 | 938 | 1050 |
| 4 | 1100 | | | | | | --- | 535 | 372 | 416 | 929 | 1090 |
| 5 | 1110 | | | | | | --- | 536 | 367 | 419 | 937 | 1120 |
| 6 | 1120 | | | | | | --- | 525 | 353 | 430 | 950 | 1160 |
| 7 | 1120 | | | | | | --- | 509 | 336 | 452 | 960 | 1180 |
| 8 | 1130 | | | | | | --- | 490 | 319 | 479 | 985 | 1100 |
| 9 | 1110 | | | | | | --- | 460 | 315 | 511 | 990 | 1090 |
| 10 | 1110 | | | | | | --- | 447 | 316 | 525 | 1010 | 1080 |
| 11 | 1090 | | | | | | --- | 439 | 312 | 526 | 1020 | 1070 |
| 12 | 1100 | | | | | | --- | 437 | 299 | 541 | 1010 | 1070 |
| 13 | 1110 | | | | | | --- | 453 | 289 | 550 | 1030 | 1060 |
| 14 | 1120 | | | | | | --- | 464 | 282 | 559 | 1050 | 1040 |
| 15 | --- | | | | | | --- | 481 | 281 | 564 | 1050 | 1010 |
| 16 | 1070 | | | | | | --- | 509 | 288 | 625 | 1060 | 999 |
| 17 | 1070 | | | | | | --- | 514 | 296 | 676 | 1020 | 997 |
| 18 | 1070 | | | | | | 1030 | 522 | 306 | 693 | 956 | 1010 |
| 19 | 1060 | | | | | | 969 | 526 | 314 | 720 | 922 | 1020 |
| 20 | 1060 | | | | | | 903 | 523 | 316 | 741 | 945 | 1030 |
| 21 | 1060 | | | | | | 883 | 525 | 314 | 761 | 959 | 1030 |
| 22 | 1100 | | | | | | 854 | 519 | 320 | 766 | 976 | 1040 |
| 23 | 1120 | | | | | | 782 | 502 | 325 | 776 | 990 | 1060 |
| 24 | 1090 | | | | | | 724 | 436 | 335 | 803 | 994 | 1080 |
| 25 | 1030 | | | | | | 676 | 424 | 339 | 818 | 1000 | 1040 |
| 26 | 1030 | | | | | | 655 | 413 | 339 | 834 | 1010 | 1040 |
| 27 | 1060 | | | | | | 652 | 380 | 345 | 847 | 1020 | 1060 |
| 28 | 1110 | | | | | | 641 | 396 | 346 | 840 | 1030 | 1060 |
| 29 | 1100 | | | | | | 615 | 397 | 350 | 846 | 1030 | 1090 |
| 30 | 1090 | | | | | | 614 | 397 | 365 | 868 | 1020 | 1120 |
| 31 | --- | | | | | | --- | 384 | --- | 890 | 1030 | --- |

### 09095530 GOVERNMENT HIGHLINE CANAL NEAR MACK, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 20.5 | 17.5 | | | | | | | | | | |
| 2 | 21.0 | 17.5 | | | | | | | | | | |
| 3 | 20.5 | 17.5 | | | | | | | | | | |
| 4 | 20.0 | 17.0 | | | | | | | | | | |
| 5 | 19.0 | 15.5 | | | | | | | | | | |
| 6 | 19.0 | 15.5 | | | | | | | | | | |
| 7 | 19.0 | 15.5 | | | | | | | | | | |
| 8 | 19.0 | 16.0 | | | | | | | | | | |
| 9 | 18.5 | 16.0 | | | | | | | | | | |
| 10 | 18.5 | 15.5 | | | | | | | | | | |
| 11 | 18.0 | 15.5 | | | | | | | | | | |
| 12 | 18.0 | 15.0 | | | | | | | | | | |
| 13 | 18.0 | 15.0 | | | | | | | | | | |
| 14 | 16.0 | 8.5 | | | | | | | | | | |
| 15 | --- | --- | | | | | | | | | | |
| 16 | 17.0 | 14.0 | | | | | | | | | | |
| 17 | 16.5 | 14.0 | | | | | | | | | | |
| 18 | 17.5 | 15.0 | | | | | | | | | | |
| 19 | 16.5 | 14.5 | | | | | | | | | | |
| 20 | 16.5 | 7.5 | | | | | | | | | | |
| 21 | 15.5 | 12.0 | | | | | | | | | | |
| 22 | 14.0 | 11.5 | | | | | | | | | | |
| 23 | 13.0 | 10.5 | | | | | | | | | | |
| 24 | 12.0 | 10.0 | | | | | | | | | | |
| 25 | 13.0 | 10.0 | | | | | | | | | | |
| 26 | 13.0 | 10.0 | | | | | | | | | | |
| 27 | 13.5 | 10.0 | | | | | | | | | | |
| 28 | 15.0 | 9.0 | | | | | | | | | | |
| 29 | 13.0 | 9.5 | | | | | | | | | | |
| 30 | 11.0 | 7.0 | | | | | | | | | | |
| 31 | --- | --- | | | | | | | | | | |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 11.0 | 10.0 | 12.5 | 10.5 | 17.5 | 15.5 | 27.5 | 25.5 | 22.0 | 20.5 |
| 2 | --- | --- | 12.5 | 10.0 | 12.5 | 10.0 | 18.0 | 16.0 | 28.5 | 25.5 | 22.5 | 21.0 |
| 3 | --- | --- | 12.5 | 10.0 | 13.0 | 10.5 | 18.5 | 16.5 | 27.5 | 25.5 | 23.0 | 21.5 |
| 4 | --- | --- | 12.5 | 10.5 | 13.5 | 11.0 | 17.5 | 15.5 | 27.5 | 25.5 | 23.5 | 22.0 |
| 5 | --- | --- | 13.0 | 10.5 | 14.0 | 11.5 | 17.5 | 15.5 | 27.0 | 25.0 | 23.5 | 21.5 |
| 6 | --- | --- | 13.5 | 11.0 | 14.0 | 12.0 | 17.5 | 15.5 | 27.5 | 24.0 | 24.5 | 22.0 |
| 7 | --- | --- | 12.5 | 11.0 | 14.0 | 11.5 | 16.5 | 15.5 | 27.0 | 24.5 | 24.0 | 23.0 |
| 8 | --- | --- | 13.0 | 10.5 | 14.0 | 11.0 | 18.0 | 15.5 | 27.0 | 25.0 | 24.5 | 21.5 |
| 9 | --- | --- | 11.0 | 9.5 | 14.5 | 11.5 | 19.0 | 16.5 | 27.5 | 25.5 | 23.5 | 22.0 |
| 10 | --- | --- | 10.5 | 9.5 | 15.0 | 12.0 | 19.5 | 17.5 | 28.5 | 25.5 | 22.0 | 21.0 |
| 11 | --- | --- | 9.5 | 8.0 | 15.0 | 13.0 | 19.5 | 17.5 | 27.5 | 25.5 | 22.0 | 20.0 |
| 12 | --- | --- | 8.5 | 7.5 | 15.0 | 7.5 | 19.0 | 17.5 | 27.5 | 25.0 | 22.5 | 20.0 |
| 13 | --- | --- | 10.0 | 8.0 | 15.0 | 12.5 | 19.5 | 17.5 | 27.0 | 24.5 | 22.5 | 21.0 |
| 14 | --- | --- | 10.0 | 9.0 | 14.5 | 12.0 | 20.0 | 17.5 | 26.5 | 25.0 | 22.0 | 20.5 |
| 15 | --- | --- | 10.0 | 9.0 | 14.5 | 12.0 | 19.5 | 17.5 | 27.5 | 25.0 | 22.0 | 20.0 |
| 16 | --- | --- | 11.5 | 9.5 | 14.5 | 12.0 | 25.5 | 18.0 | 26.5 | 24.5 | 22.0 | 21.0 |
| 17 | --- | --- | 11.5 | 10.0 | 15.0 | 12.0 | 26.0 | 23.5 | 26.0 | 23.5 | 22.0 | 20.5 |
| 18 | 12.5 | 10.5 | 12.0 | 7.5 | 15.5 | 12.0 | 26.0 | 23.0 | 24.5 | 23.0 | 22.0 | 20.0 |
| 19 | 13.5 | 8.0 | 12.5 | 10.0 | 16.0 | 13.0 | 26.5 | 24.0 | 24.0 | 22.5 | 22.0 | 20.0 |
| 20 | 14.0 | 10.0 | 13.5 | 11.0 | 16.0 | 13.5 | 27.0 | 16.5 | 24.0 | 21.5 | 22.0 | 18.0 |
| 21 | 13.0 | 11.0 | 14.0 | 12.0 | 16.0 | 13.5 | 27.5 | 24.0 | 23.5 | 21.5 | 21.5 | 19.5 |
| 22 | 13.5 | 10.5 | 14.0 | 13.0 | 16.0 | 13.5 | 27.5 | 24.0 | 24.0 | 22.0 | 20.5 | 17.0 |
| 23 | 12.0 | 10.5 | 14.0 | 12.5 | 15.5 | 14.0 | 27.0 | 25.0 | 24.5 | 23.0 | 19.5 | 15.0 |
| 24 | 12.0 | 7.5 | 13.0 | 10.0 | 16.0 | 13.5 | 27.5 | 16.5 | 24.0 | 23.0 | 19.5 | 15.0 |
| 25 | 12.0 | 9.5 | 11.0 | 9.5 | 16.5 | 13.5 | 26.0 | 24.0 | 23.5 | 22.5 | 19.5 | 15.0 |
| 26 | 12.5 | 9.5 | 10.5 | 8.5 | 16.5 | 14.0 | 26.0 | 23.5 | 24.0 | 22.0 | 19.5 | 15.5 |
| 27 | 12.5 | 9.5 | 11.0 | 9.0 | 16.5 | 14.5 | 26.0 | 23.5 | 24.5 | 22.5 | 20.0 | 17.5 |
| 28 | 13.5 | 10.0 | 12.0 | 9.0 | 17.5 | 14.5 | 26.0 | 24.0 | 24.5 | 23.0 | 20.0 | 16.5 |
| 29 | 12.5 | 10.5 | 12.5 | 10.0 | 17.5 | 15.0 | 26.5 | 24.0 | 24.0 | 22.5 | 20.0 | 15.0 |
| 30 | 12.5 | 10.0 | 13.0 | 10.5 | 17.5 | 15.5 | 27.5 | 24.0 | 23.5 | 22.0 | 20.0 | 17.0 |
| 31 | --- | --- | 12.5 | 10.0 | --- | --- | 27.5 | 25.0 | 22.5 | 21.0 | --- | --- |

## 09096100 VEGA RESERVOIR NEAR COLLBRAN, CO

LOCATION.--Lat 39°13'30", long 107°48'40", in sec.6, T.10 S., R.93 W., Mesa County, Hydrologic Unit 14010005, at dam on Plateau Creek, 10 mi (16 km) southeast of Collbran.

DRAINAGE AREA.--24.4 mi² (63.2 km²).

PERIOD OF RECORD.--April 1960 to September 1980 (discontinued).

GAGE.--Nonrecording gage read once daily. Datum of gage is 7,906 ft (2,409.7 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by an earth and rockfill dam. Dam completed by Water and Power Resources Service in 1960. Usable storage began in May 1959 while dam was under construction. Capacity of reservoir, 32,930 acre-ft (40.6 hm³) between elevations 7,906 ft (2,409.7 m), bottom of outlet gate, and 7,984 ft (2,433.5 m), crest of spillway. Dead storage, 823 acre-ft (1.01 hm³). Figures given are usable contents. Reservoir is used to store water for irrigation and power development.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 35,220 acre-ft (43.4 hm³) June 17, 1975, elevation, 7,986.5 ft (2,434.29 m); minimum since first filling in May 1962, 850 acre-ft (1.05 hm³) Aug. 19 to Sept. 30, 1977, Oct. 1 to Nov. 30, 1978, elevation, 7,914.6 ft (2,412.37 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, not determined; minimum, not determined; daily readings not available.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1000, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Date | Elevation | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30. | 7,952.2 | 11,500 | - |
| Oct. 31. | 7,944.6 | 8,310 | -3,190 |
| Nov. 30. | 7,944.9 | 8,420 | +110 |
| Dec. 31. | 7,946.6 | 9,080 | +660 |
| CAL YR 1979 | | - | -360 |
| Jan. 31. | 7,948.4 | 9,820 | +740 |
| Feb. 29. | 7,950.2 | 10,580 | +760 |
| Mar. 31. | 7,952.1 | 11,420 | +840 |
| Apr. 30. | 7,954.4 | 12,510 | +1,090 |
| May 31. | 7,973.2 | 24,060 | +11,550 |
| June 30. | 7,986.2 | 34,940 | +10,880 |
| July 31. | 7,981.4 | 30,650 | -4,290 |
| Aug. 31. | 7,964.5 | 18,120 | -12,530 |
| Sept. 30. | 7,947.5 | 9,440 | -8,680 |
| WTR YR 1980 | | | -2,060 |

## 09096500 PLATEAU CREEK NEAR COLLBRAN, CO

LOCATION.--Lat 39°15'02", long 107°50'24", in SE¼NE¼ sec.26, T.9 S., R.94 W., Mesa County, Hydrologic Unit 14010005, on right bank 10 ft (3 m) downstream from private bridge, 1.5 mi (2.4 km) downstream from Leon Creek, and 6.6 mi (10.6 km) east of Collbran.

DRAINAGE AREA.--80.4 mi$^2$ (208.2 km$^2$).

PERIOD OF RECORD.--September 1921 to September 1980 (discontinued). Prior to October 1933, monthly discharge only, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1922(M), 1935(M). WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,130 ft (2,173 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by storage in Vega Reservoir (station 09096100) since May 1958, transbasin diversion to Surface Creek in Gunnison River basin, diversions above station for irrigation of about 800 acres (3.24 km$^2$) and about 8,400 acres (34.0 km$^2$) below station and about 550 acres (2.23 km$^2$) in Buzzard Creek drainage, and for power development. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--39 years (water years 1922-60), 92.2 ft$^3$/s (2.61 m$^3$/s), 66,800 acre-ft/yr (82.4 hm$^3$/yr), prior to completion of Vega Reservoir; 20 years (water years 1961-80), 31.8 ft$^3$/s (0.901 m$^3$/s), 23,040 acre-ft/yr (28.4 hm$^3$/yr), subseqent to completion of Vega Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,080 ft$^3$/s (87.2 m$^3$/s) May 27, 1922, gage height, 6.90 ft (2.103 m), from rating curve extended above 1,300 ft$^3$/s (37 m$^3$/s); minimum daily, 0.72 ft$^3$/s (0.020 m$^3$/s) Mar. 6, 9, 1980 (result of storage in Vega Reservoir); minimum daily prior to construction of Vega Reservoir, 3.0 ft$^3$/s (0.085 m$^3$/s) Sept. 21, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft$^3$/s (30.6 m$^3$/s) at 2100 June 10, gage height, 4.72 ft (1.439 m); minimum daily, 0.72 ft$^3$/s (0.020 m$^3$/s) Mar. 6, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13 | 2.7 | 2.3 | 2.3 | 1.5 | 1.9 | .93 | 8.7 | 94 | 162 | 27 | 20 |
| 2 | 12 | 3.1 | 2.2 | 2.4 | 1.6 | 2.0 | .94 | 6.3 | 89 | 156 | 29 | 20 |
| 3 | 12 | 3.0 | 2.2 | 2.4 | 1.5 | 1.7 | .96 | 5.7 | 139 | 142 | 28 | 19 |
| 4 | 11 | 2.9 | 2.2 | 2.3 | 1.5 | .76 | 1.2 | 5.0 | 227 | 106 | 28 | 19 |
| 5 | 11 | 2.9 | 2.3 | 2.2 | 1.6 | .73 | 1.3 | 4.6 | 377 | 106 | 29 | 19 |
| 6 | 11 | 3.1 | 2.5 | 2.1 | 1.5 | .72 | 1.3 | 4.4 | 529 | 87 | 29 | 19 |
| 7 | 10 | 3.3 | 2.5 | 2.3 | 1.6 | .75 | 1.2 | 4.9 | 580 | 77 | 28 | 20 |
| 8 | 10 | 3.5 | 2.3 | 2.3 | 1.5 | .75 | 1.1 | 4.8 | 634 | 49 | 27 | 23 |
| 9 | 11 | 3.5 | 2.2 | 2.2 | 1.5 | .72 | 1.4 | 9.3 | 777 | 46 | 24 | 23 |
| 10 | 11 | 3.4 | 2.1 | 2.1 | 1.6 | .77 | 1.7 | 12 | 780 | 43 | 23 | 23 |
| 11 | 10 | 3.3 | 2.2 | 1.9 | 1.7 | .76 | 1.5 | 11 | 812 | 31 | 23 | 28 |
| 12 | 10 | 3.2 | 2.2 | 2.1 | 1.9 | .74 | 1.4 | 12 | 770 | 31 | 24 | 23 |
| 13 | 10 | 3.2 | 2.2 | 2.3 | 1.9 | .75 | 1.6 | 11 | 722 | 32 | 27 | 27 |
| 14 | 10 | 3.3 | 2.3 | 2.4 | 1.8 | .86 | 2.0 | 11 | 649 | 31 | 28 | 21 |
| 15 | 10 | 3.3 | 2.4 | 2.2 | 1.8 | 1.0 | 2.7 | 11 | 558 | 28 | 36 | 20 |
| 16 | 10 | 3.1 | 2.4 | 2.0 | 1.8 | .87 | 3.2 | 11 | 495 | 31 | 34 | 19 |
| 17 | 9.6 | 3.0 | 2.4 | 1.9 | 1.6 | .79 | 3.5 | 13 | 441 | 34 | 30 | 19 |
| 18 | 11 | 3.2 | 2.3 | 1.9 | 1.7 | .83 | 4.3 | 12 | 421 | 34 | 29 | 17 |
| 19 | 11 | 3.2 | 2.3 | 1.8 | 1.9 | .96 | 5.1 | 12 | 406 | 33 | 28 | 18 |
| 20 | 12 | 3.1 | 2.6 | 1.8 | 1.8 | 1.1 | 5.5 | 13 | 359 | 32 | 29 | 19 |
| 21 | 16 | 2.4 | 2.5 | 1.7 | 1.6 | 1.3 | 5.7 | 26 | 316 | 31 | 28 | 19 |
| 22 | 8.4 | 2.3 | 2.3 | 1.6 | 1.6 | 1.3 | 5.8 | 28 | 296 | 29 | 28 | 19 |
| 23 | 5.2 | 2.2 | 2.1 | 1.8 | 1.6 | 1.0 | 6.3 | 36 | 274 | 28 | 30 | 18 |
| 24 | 4.8 | 2.3 | 2.0 | 2.0 | 1.6 | .98 | 6.3 | 54 | 251 | 26 | 46 | 18 |
| 25 | 4.6 | 2.4 | 2.1 | 2.1 | 1.6 | 1.1 | 6.1 | 52 | 222 | 31 | 38 | 18 |
| 26 | 4.4 | 2.5 | 2.2 | 2.1 | 1.6 | 1.0 | 6.0 | 56 | 203 | 29 | 35 | 18 |
| 27 | 4.3 | 2.3 | 2.2 | 2.0 | 1.9 | .96 | 5.6 | 58 | 191 | 25 | 31 | 18 |
| 28 | 4.3 | 2.0 | 2.1 | 1.9 | 2.1 | .92 | 5.8 | 62 | 175 | 23 | 29 | 18 |
| 29 | 4.5 | 2.3 | 2.0 | 1.7 | 2.1 | .85 | 6.6 | 64 | 152 | 20 | 24 | 18 |
| 30 | 4.4 | 2.5 | 2.0 | 1.5 | --- | .84 | 9.8 | 74 | 155 | 23 | 21 | 17 |
| 31 | 4.2 | --- | 2.1 | 1.4 | --- | .93 | --- | 90 | --- | 28 | 22 | --- |
| TOTAL | 280.7 | 86.5 | 69.7 | 62.7 | 49.0 | 30.64 | 106.83 | 782.7 | 12094 | 1584 | 892 | 597 |
| MEAN | 9.05 | 2.88 | 2.25 | 2.02 | 1.69 | .99 | 3.56 | 25.2 | 403 | 51.1 | 28.8 | 19.9 |
| MAX | 16 | 3.5 | 2.6 | 2.4 | 2.1 | 2.0 | 9.8 | 90 | 812 | 162 | 46 | 28 |
| MIN | 4.2 | 2.0 | 2.0 | 1.4 | 1.5 | .72 | .93 | 4.4 | 89 | 20 | 21 | 17 |
| AC-FT | 557 | 172 | 138 | 124 | 97 | 61 | 212 | 1550 | 23990 | 3140 | 1770 | 1180 |

CAL YR 1979 TOTAL 17310.10 MEAN 47.4 MAX 919 MIN 2.0 AC-FT 34330
WTR YR 1980 TOTAL 16635.77 MEAN 45.5 MAX 812 MIN .72 AC-FT 33000

## 09097500 BUZZARD CREEK NEAR COLLBRAN, CO

LOCATION.--Lat 39°16'20", long 107°51'00", in SE¼SW¼ sec.14, T.9 S., R.94 W., Mesa County, Hydrologic Unit 14010005, on right bank 150 ft (46 m) upstream from county bridge, 1.1 mi (1.8 km) upstream from Brush Creek, and 7 mi (11 km) east of Collbran.

DRAINAGE AREA.--143 mi² (370 km²).

PERIOD OF RECORD.--September 1921 to September 1980 (discontinued). Prior to October 1933, monthly discharges only, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1922(M). WRD Colo. 1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,955 ft (2,120 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 1,300 acres (5.26 km²) above station. Erie Canal imports water from Plateau Creek for irrigation of about 280 acres (1.13 km²) above station. Small diversions above station from Middleton and Uhl Creeks to west Mamm Creek (Mamm Creek basin) Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--59 years, 46.6 ft³/s (1.320 m³/s), 33,760 acre-ft/yr (41.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,630 ft³/s (46.2 m³/s) May 14, 1941, gage height, 7.80 ft (2.377 m), from rating curve extended above 900 ft³/s (25 m³/s); no flow for many days in 1959-60, 1963, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 627 ft³/s (17.8 m³/s) at 0400 May 24, gage height, 4.90 ft (1.494 m), only peak above base of 350 ft³/s (9.9 m³/s); minimum daily, 1.4 ft³/s (0.040 m³/s) July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.2 | 3.4 | 3.7 | 3.3 | 5.4 | 8.1 | 9.1 | 331 | 295 | 74 | 3.8 | 3.9 |
| 2 | 1.8 | 3.1 | 3.8 | 4.2 | 5.4 | 9.2 | 7.3 | 256 | 267 | 92 | 3.5 | 3.0 |
| 3 | 2.0 | 3.2 | 3.9 | 4.9 | 5.6 | 6.6 | 9.5 | 255 | 255 | 82 | 3.8 | 2.6 |
| 4 | 2.0 | 3.6 | 3.9 | 4.9 | 5.9 | 6.7 | 4.9 | 262 | 262 | 61 | 2.8 | 2.5 |
| 5 | 2.0 | 3.6 | 4.0 | 4.9 | 5.7 | 6.6 | 11 | 262 | 263 | 42 | 3.0 | 2.5 |
| 6 | 1.9 | 3.5 | 3.9 | 4.9 | 5.4 | 5.3 | 14 | 292 | 255 | 32 | 3.6 | 2.5 |
| 7 | 1.9 | 4.3 | 3.9 | 5.2 | 5.2 | 5.6 | 13 | 428 | 228 | 24 | 3.2 | 2.6 |
| 8 | 1.6 | 4.5 | 4.2 | 5.2 | 5.0 | 5.0 | 13 | 378 | 201 | 27 | 3.0 | 2.9 |
| 9 | 1.7 | 4.6 | 4.1 | 5.0 | 4.5 | 4.8 | 14 | 354 | 204 | 28 | 2.9 | 3.0 |
| 10 | 1.6 | 4.3 | 4.0 | 4.7 | 4.1 | 4.1 | 19 | 347 | 211 | 18 | 2.3 | 3.3 |
| 11 | 2.0 | 4.2 | 4.1 | 4.5 | 4.0 | 4.0 | 21 | 383 | 216 | 15 | 2.1 | 7.0 |
| 12 | 2.2 | 3.3 | 4.1 | 4.2 | 4.5 | 4.5 | 29 | 416 | 204 | 9.5 | 1.8 | 5.6 |
| 13 | 2.3 | 3.6 | 3.8 | 4.8 | 4.8 | 4.1 | 25 | 277 | 190 | 14 | 1.7 | 6.6 |
| 14 | 2.3 | 3.8 | 3.6 | 5.5 | 4.8 | 4.7 | 33 | 241 | 170 | 25 | 1.9 | 5.6 |
| 15 | 2.4 | 3.5 | 3.7 | 6.3 | 8.1 | 5.2 | 53 | 230 | 145 | 14 | 3.3 | 4.8 |
| 16 | 2.5 | 3.1 | 3.7 | 7.0 | 8.2 | 4.9 | 69 | 270 | 127 | 5.8 | 2.7 | 4.0 |
| 17 | 2.6 | 3.4 | 3.7 | 7.5 | 7.6 | 4.8 | 80 | 461 | 116 | 5.3 | 2.2 | 2.4 |
| 18 | 2.8 | 4.7 | 3.6 | 7.1 | 7.4 | 5.7 | 96 | 334 | 111 | 3.1 | 1.9 | 2.0 |
| 19 | 2.7 | 4.4 | 3.7 | 6.7 | 9.7 | 5.4 | 134 | 324 | 110 | 2.3 | 1.8 | 2.0 |
| 20 | 3.1 | 4.4 | 3.7 | 6.2 | 8.8 | 5.8 | 178 | 375 | 103 | 2.3 | 1.8 | 2.2 |
| 21 | 3.7 | 3.6 | 3.7 | 5.7 | 7.7 | 7.1 | 225 | 412 | 97 | 2.3 | 1.8 | 2.3 |
| 22 | 4.0 | 3.8 | 4.1 | 5.5 | 6.2 | 7.6 | 286 | 501 | 95 | 2.0 | 1.9 | 2.4 |
| 23 | 3.9 | 3.5 | 4.6 | 5.0 | 6.3 | 7.0 | 299 | 511 | 90 | 2.0 | 4.0 | 2.4 |
| 24 | 3.6 | 3.6 | 4.6 | 4.8 | 5.5 | 7.5 | 270 | 490 | 89 | 1.8 | 7.0 | 2.4 |
| 25 | 3.9 | 3.9 | 4.5 | 5.2 | 7.7 | 7.7 | 237 | 360 | 83 | 1.5 | 5.4 | 2.4 |
| 26 | 4.2 | 4.0 | 4.5 | 5.4 | 6.3 | 7.6 | 240 | 310 | 61 | 1.4 | 4.7 | 2.4 |
| 27 | 4.1 | 4.1 | 4.8 | 5.6 | 6.6 | 7.9 | 234 | 315 | 59 | 2.7 | 4.2 | 2.5 |
| 28 | 4.4 | 4.1 | 4.8 | 5.8 | 12 | 7.7 | 248 | 351 | 53 | 2.9 | 3.9 | 2.8 |
| 29 | 4.8 | 3.9 | 4.5 | 5.9 | 8.5 | 7.3 | 260 | 353 | 41 | 3.2 | 3.5 | 2.6 |
| 30 | 5.3 | 3.7 | 4.4 | 5.7 | --- | 3.2 | 413 | 296 | 46 | 3.2 | 3.0 | 2.4 |
| 31 | 4.5 | --- | 3.8 | 5.7 | --- | 8.0 | --- | 310 | --- | 3.5 | 2.8 | --- |
| TOTAL | 90.0 | 114.7 | 125.4 | 167.3 | 186.9 | 189.7 | 3544.8 | 10685 | 4647 | 602.8 | 95.3 | 95.6 |
| MEAN | 2.90 | 3.82 | 4.05 | 5.40 | 6.44 | 6.12 | 118 | 345 | 155 | 19.4 | 3.07 | 3.19 |
| MAX | 5.3 | 4.7 | 4.8 | 7.5 | 12 | 9.2 | 413 | 511 | 295 | 92 | 7.0 | 7.0 |
| MIN | 1.6 | 3.1 | 3.6 | 3.3 | 4.0 | 3.2 | 4.9 | 230 | 41 | 1.4 | 1.7 | 2.0 |
| AC-FT | 179 | 228 | 249 | 332 | 371 | 376 | 7030 | 21190 | 9220 | 1200 | 189 | 190 |

CAL YR 1979 TOTAL 23605.81 MEAN 64.7 MAX 646 MIN .73 AC-FT 46820
WTR YR 1980 TOTAL 20544.50 MEAN 56.1 MAX 511 MIN 1.4 AC-FT 40750

## 09105000 PLATEAU CREEK NEAR CAMEO, COLO.

LOCATION.--Lat 39°11'01", long 108°16'06", in NW¼SW¼ sec.18, T.10 S., R.97 W., Mesa County, Hydrologic Unit 14010005, on left bank 300 ft (91 m) from State Highway 65, 1.1 mi (1.8 km) upstream from mouth, and 4.0 mi (6.4 km) northeast of Cameo.

DRAINAGE AREA.--592 mi$^2$ (1,533 km$^2$).

PERIOD OF RECORD.--October 1935 to current year. Prior to May 1936, monthly discharge only, published in WSP 1313.

REVISED RECORDS.--WSP 979: 1942. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,836 ft (1,474 m), from topographic map. Prior to Aug. 27, 1936, nonrecording gage.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, diversions for irrigation of about 25,000 acres (101 km$^2$), return flow from irrigated areas, and for power development.

AVERAGE DISCHARGE.--45 years, 180 ft$^3$/s (5.098 m$^3$/s), 130,400 acre-ft/yr (161 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,580 ft$^3$/s (158 m$^3$/s) June 15, 1973, gage height, 7.99 ft (2.435 m); minimum daily, 8.2 ft$^3$/s (0.23 m$^3$/s) Aug. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,750 ft$^3$/s (49.6 m$^3$/s) at 0200 June 11, gage height, 5.95 ft (1.814 m); minimum daily, 64 ft$^3$/s (1.81 m$^3$/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 118 | 105 | 94 | 78 | 93 | 82 | 98 | 632 | 677 | 346 | 67 | 99 |
| 2 | 102 | 106 | 100 | 90 | 73 | 82 | 118 | 506 | 617 | 437 | 69 | 96 |
| 3 | 106 | 106 | 110 | 95 | 71 | 82 | 103 | 487 | 622 | 392 | 69 | 98 |
| 4 | 108 | 111 | 112 | 95 | 86 | 83 | 113 | 490 | 704 | 312 | 67 | 96 |
| 5 | 112 | 108 | 120 | 77 | 82 | 84 | 118 | 508 | 807 | 280 | 65 | 94 |
| 6 | 89 | 107 | 110 | 75 | 80 | 87 | 119 | 548 | 940 | 249 | 65 | 95 |
| 7 | 88 | 121 | 107 | 84 | 76 | 93 | 122 | 695 | 955 | 227 | 64 | 91 |
| 8 | 86 | 123 | 91 | 94 | 72 | 90 | 128 | 719 | 922 | 214 | 68 | 95 |
| 9 | 103 | 118 | 88 | 88 | 66 | 88 | 139 | 689 | 1100 | 185 | 67 | 105 |
| 10 | 121 | 109 | 90 | 82 | 74 | 88 | 145 | 661 | 1330 | 167 | 67 | 111 |
| 11 | 118 | 103 | 97 | 72 | 76 | 95 | 141 | 674 | 1410 | 157 | 65 | 122 |
| 12 | 116 | 103 | 90 | 78 | 77 | 96 | 123 | 723 | 1290 | 142 | 68 | 117 |
| 13 | 90 | 100 | 78 | 80 | 77 | 94 | 126 | 582 | 1240 | 149 | 73 | 117 |
| 14 | 95 | 104 | 79 | 120 | 78 | 94 | 134 | 532 | 984 | 166 | 70 | 111 |
| 15 | 103 | 104 | 84 | 113 | 78 | 108 | 171 | 494 | 885 | 147 | 83 | 108 |
| 16 | 115 | 98 | 87 | 93 | 74 | 107 | 205 | 498 | 803 | 132 | 89 | 107 |
| 17 | 119 | 97 | 82 | 83 | 70 | 92 | 212 | 722 | 745 | 129 | 65 | 104 |
| 18 | 123 | 107 | 77 | 80 | 78 | 102 | 247 | 609 | 718 | 122 | 82 | 102 |
| 19 | 125 | 109 | 78 | 77 | 73 | 109 | 302 | 564 | 762 | 110 | 79 | 96 |
| 20 | 116 | 110 | 84 | 71 | 72 | 108 | 377 | 621 | 664 | 105 | 85 | 92 |
| 21 | 162 | 99 | 86 | 72 | 75 | 112 | 448 | 697 | 612 | 103 | 85 | 94 |
| 22 | 133 | 96 | 88 | 66 | 83 | 126 | 519 | 839 | 569 | 100 | 87 | 92 |
| 23 | 138 | 98 | 80 | 75 | 82 | 137 | 544 | 959 | 522 | 99 | 87 | 93 |
| 24 | 129 | 106 | 77 | 83 | 81 | 118 | 564 | 976 | 476 | 100 | 111 | 94 |
| 25 | 118 | 117 | 81 | 90 | 80 | 150 | 464 | 759 | 434 | 101 | 123 | 94 |
| 26 | 118 | 123 | 83 | 88 | 76 | 129 | 470 | 669 | 387 | 85 | 129 | 92 |
| 27 | 115 | 112 | 82 | 88 | 76 | 116 | 462 | 655 | 360 | 80 | 111 | 97 |
| 28 | 115 | 96 | 80 | 97 | 82 | 111 | 485 | 716 | 339 | 78 | 110 | 94 |
| 29 | 120 | 88 | 68 | 106 | 88 | 96 | 513 | 714 | 300 | 73 | 104 | 88 |
| 30 | 122 | 90 | 68 | 101 | --- | 95 | 664 | 637 | 283 | 70 | 107 | 90 |
| 31 | 117 | --- | 72 | 99 | --- | 104 | --- | 680 | --- | 66 | 104 | --- |
| TOTAL | 3540 | 3174 | 2723 | 2690 | 2249 | 3158 | 8374 | 20255 | 22457 | 5123 | 2605 | 2984 |
| MEAN | 114 | 106 | 87.8 | 86.8 | 77.6 | 102 | 279 | 653 | 749 | 165 | 84.0 | 99.5 |
| MAX | 162 | 123 | 120 | 120 | 93 | 150 | 664 | 976 | 1410 | 437 | 129 | 122 |
| MIN | 86 | 88 | 68 | 66 | 66 | 82 | 98 | 487 | 283 | 66 | 64 | 88 |
| AC-FT | 7020 | 6300 | 5400 | 5340 | 4460 | 6260 | 16610 | 40180 | 44540 | 10160 | 5170 | 5920 |

CAL YR 1979 TOTAL 77037 MEAN 211 MAX 1330 MIN 35 AC-FT 152800
WTR YR 1980 TOTAL 79332 MEAN 217 MAX 1410 MIN 64 AC-FT 157400

NOTE.--NO GAGE-HEIGHT RECORD FEB. 4 TO MAR. 14.

## 09106104 KIEFER EXTENSION GRAND VALLEY CANAL NEAR FRUITA, CO

LOCATION.--Lat 39°13'31", long 108°46'28", in SW¼SW¼ sec.24, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 300 ft (91 m) upstream from small timber bridge, 1,050 ft (320 m) upstream from Golden Hill Canal headgate, 1,100 ft (340 m) north of C Road, and 5.0 mi (8.0 km) north of Fruita.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,595 ft (1,401 m), from topographic map.

REMARKS.--Records good except those for period Aug. 1-20, which are fair. Grand Valley Canal diverts water from Colorado River in SE¼NE¼ sec.3, T.1 S., R.2 E. Water flowing past this gage is used for irrigation in Reed Wash basin. Entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 153 ft³/s (4.33 m³/s), Sept. 22, 1980; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 129 | 119 | .00 | .00 | .00 | .00 | .00 | 131 | 134 | 134 | 138 | 138 |
| 2 | 129 | 27 | .00 | .00 | .00 | .00 | .00 | 134 | 137 | 137 | 139 | 141 |
| 3 | 128 | .00 | .00 | .00 | .00 | .00 | .00 | 134 | 132 | 133 | 139 | 139 |
| 4 | 126 | .00 | .00 | .00 | .00 | .00 | .00 | 132 | 132 | 133 | 140 | 137 |
| 5 | 126 | .00 | .00 | .00 | .00 | .00 | .00 | 138 | 134 | 136 | 137 | 137 |
| 6 | 128 | .00 | .00 | .00 | .00 | .00 | .00 | 139 | 135 | 138 | 140 | 141 |
| 7 | 128 | .00 | .00 | .00 | .00 | .00 | .00 | 135 | 134 | 138 | 139 | 147 |
| 8 | 126 | .00 | .00 | .00 | .00 | .00 | .00 | 138 | 136 | 139 | 134 | 146 |
| 9 | 128 | .00 | .00 | .00 | .00 | .00 | .00 | 141 | 136 | 139 | 131 | 146 |
| 10 | 129 | .00 | .00 | .00 | .00 | .00 | .00 | 142 | 137 | 139 | 134 | 146 |
| 11 | 129 | .00 | .00 | .00 | .00 | .00 | .00 | 143 | 135 | 135 | 137 | 147 |
| 12 | 128 | .00 | .00 | .00 | .00 | .00 | .00 | 139 | 135 | 130 | 139 | 144 |
| 13 | 126 | .00 | .00 | .00 | .00 | .00 | .00 | 142 | 131 | 134 | 139 | 146 |
| 14 | 123 | .00 | .00 | .00 | .00 | .00 | .00 | 143 | 131 | 134 | 139 | 143 |
| 15 | 129 | .00 | .00 | .00 | .00 | .00 | .00 | 142 | 133 | 138 | 139 | 146 |
| 16 | 128 | .00 | .00 | .00 | .00 | .00 | 50 | 138 | 135 | 139 | 139 | 145 |
| 17 | 128 | .00 | .00 | .00 | .00 | .00 | 92 | 139 | 132 | 140 | 139 | 142 |
| 18 | 133 | .00 | .00 | .00 | .00 | .00 | 100 | 140 | 132 | 138 | 139 | 146 |
| 19 | 136 | .00 | .00 | .00 | .00 | .00 | 105 | 139 | 131 | 135 | 138 | 145 |
| 20 | 136 | .00 | .00 | .00 | .00 | .00 | 110 | 136 | 130 | 131 | 137 | 147 |
| 21 | 134 | .00 | .00 | .00 | .00 | .00 | 105 | 137 | 135 | 133 | 137 | 151 |
| 22 | 136 | .00 | .00 | .00 | .00 | .00 | 109 | 136 | 134 | 129 | 142 | 153 |
| 23 | 134 | .00 | .00 | .00 | .00 | .00 | 111 | 133 | 135 | 133 | 139 | 145 |
| 24 | 131 | .00 | .00 | .00 | .00 | .00 | 113 | 133 | 136 | 138 | 134 | 144 |
| 25 | 126 | .00 | .00 | .00 | .00 | .00 | 109 | 136 | 131 | 142 | 141 | 142 |
| 26 | 126 | .00 | .00 | .00 | .00 | .00 | 113 | 133 | 130 | 144 | 142 | 140 |
| 27 | 132 | .00 | .00 | .00 | .00 | .00 | 112 | 132 | 126 | 148 | 145 | 141 |
| 28 | 133 | .00 | .00 | .00 | .00 | .00 | 114 | 131 | 129 | 139 | 149 | 142 |
| 29 | 127 | .00 | .00 | .00 | .00 | .00 | 115 | 134 | 130 | 131 | 147 | 141 |
| 30 | 123 | .00 | .00 | .00 | --- | .00 | 124 | 132 | 131 | 136 | 147 | 140 |
| 31 | 126 | --- | .00 | .00 | --- | .00 | --- | 130 | --- | 137 | 142 | --- |
| TOTAL | 4001 | 146.00 | .00 | .00 | .00 | .00 | 1582.00 | 4232 | 3989 | 4230 | 4321 | 4308 |
| MEAN | 129 | 4.87 | .000 | .000 | .000 | .000 | 52.7 | 137 | 133 | 136 | 139 | 144 |
| MAX | 136 | 119 | .00 | .00 | .00 | .00 | 124 | 143 | 137 | 148 | 149 | 153 |
| MIN | 123 | .00 | .00 | .00 | .00 | .00 | .00 | 130 | 126 | 129 | 131 | 137 |
| AC-FT | 7940 | 290 | .00 | .00 | .00 | .00 | 3140 | 8390 | 7910 | 8390 | 8570 | 8540 |

CAL YR 1979 TOTAL 23968.00 MEAN 65.7 MAX 142 MIN .00 AC-FT 47540
WTR YR 1980 TOTAL 26809.00 MEAN 73.2 MAX 153 MIN .00 AC-FT 53180

## 09106108 KIEFER EXTENSION GRAND VALLEY CANAL NEAR LOMA, CO

LOCATION.--Lat 39°13'40", long 108°49'06", in NW¼SE¼ sec.21, T.2 N., R.3 W. (corrected), Ute Meridian, Mesa County, Hydrologic Unit 14010005, on left bank 600 ft (180 m) south of 'O¾' Road, 1,800 ft (550 m) west of 13 Road, and 2.5 mi (4.0 km) north of Loma.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,585 ft (1,398 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Grand Valley Canal diverts water from Colorado River in SE¼NE¼ sec.3, T.1 S., R.2 E. Water flowing past this gage is used for irrigation in lower Reed Wash basin. Surplus flows are wasted into Reed Wash. Entire flow regulated by diversion gages. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 86 ft³/s (2.44 m³/s), Aug. 3, 6, 16, 18, 1980; no flow part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 65 | 58 | .00 | .00 | .00 | .00 | .00 | 59 | 78 | 78 | 84 | 81 |
| 2 | 66 | 18 | .00 | .00 | .00 | .00 | .00 | 59 | 81 | 81 | 83 | 31 |
| 3 | 66 | .00 | .00 | .00 | .00 | .00 | .00 | 59 | 79 | 81 | 86 | 81 |
| 4 | 66 | .00 | .00 | .00 | .00 | .00 | .00 | 61 | 78 | 80 | 85 | 80 |
| 5 | 63 | .00 | .30 | .00 | .00 | .00 | .00 | 64 | 76 | 78 | 83 | 80 |
| 6 | 66 | .00 | .00 | .00 | .00 | .00 | .00 | 65 | 78 | 78 | 86 | 80 |
| 7 | 70 | .00 | .00 | .00 | .00 | .00 | .00 | 65 | 77 | 78 | 85 | 80 |
| 8 | 68 | .00 | .00 | .00 | .00 | .00 | .00 | 66 | 76 | 78 | 81 | 79 |
| 9 | 65 | .00 | .00 | .00 | .00 | .00 | .00 | 70 | 80 | 78 | 81 | 79 |
| 10 | 67 | .00 | .00 | .00 | .00 | .00 | .00 | 67 | 78 | 79 | 83 | 80 |
| 11 | 67 | .00 | .00 | .00 | .00 | .00 | .00 | 66 | 79 | 79 | 84 | 78 |
| 12 | 67 | .00 | .00 | .00 | .00 | .00 | .00 | 62 | 77 | 81 | 83 | 78 |
| 13 | 65 | .00 | .00 | .00 | .00 | .00 | .00 | 62 | 77 | 83 | 85 | 80 |
| 14 | 64 | .00 | .00 | .00 | .00 | .00 | .00 | 62 | 79 | 62 | 84 | 80 |
| 15 | 65 | .00 | .00 | .00 | .00 | .00 | .00 | 63 | 81 | 80 | 84 | 60 |
| 16 | 64 | .00 | .00 | .00 | .00 | .00 | .00 | 63 | 80 | 83 | 86 | 79 |
| 17 | 64 | .00 | .00 | .00 | .00 | .00 | .00 | 63 | 80 | 84 | 84 | 77 |
| 18 | 65 | .00 | .00 | .00 | .00 | .00 | 33 | 64 | 78 | 84 | 86 | 77 |
| 19 | 65 | .00 | .00 | .00 | .00 | .00 | 59 | 65 | 76 | 83 | 85 | 73 |
| 20 | 67 | .00 | .00 | .00 | .00 | .00 | 60 | 64 | 76 | 80 | 85 | 75 |
| 21 | 66 | .00 | .00 | .00 | .00 | .00 | 62 | 65 | 78 | 62 | 83 | 77 |
| 22 | 63 | .00 | .00 | .00 | .00 | .00 | 65 | 66 | 78 | 84 | 84 | 78 |
| 23 | 63 | .00 | .00 | .00 | .00 | .00 | 57 | 68 | 78 | 85 | 82 | 78 |
| 24 | 61 | .00 | .00 | .00 | .00 | .00 | 51 | 70 | 78 | 82 | 83 | 81 |
| 25 | 60 | .00 | .00 | .00 | .00 | .00 | 51 | 75 | 77 | 83 | 83 | 83 |
| 26 | 62 | .00 | .00 | .00 | .00 | .00 | 55 | 72 | 79 | 85 | 81 | 83 |
| 27 | 65 | .00 | .00 | .00 | .00 | .00 | 55 | 74 | 81 | 85 | 80 | 81 |
| 28 | 65 | .00 | .00 | .00 | .00 | .00 | 54 | 77 | 80 | 81 | 83 | 80 |
| 29 | 59 | .00 | .00 | .00 | .00 | .00 | 55 | 77 | 78 | 81 | 80 | 80 |
| 30 | 57 | .00 | .00 | .00 | --- | .00 | 57 | 78 | 79 | 81 | 80 | 81 |
| 31 | 58 | --- | .00 | .00 | --- | .00 | --- | 79 | --- | 83 | 80 | --- |
| TOTAL | 1994 | 76.00 | .00 | .00 | .00 | .00 | 714.00 | 2070 | 2352 | 2520 | 2582 | 2380 |
| MEAN | 64.3 | 2.53 | .000 | .000 | .000 | .000 | 23.8 | 66.8 | 78.4 | 81.3 | 83.3 | 79.3 |
| MAX | 70 | 58 | .00 | .00 | .00 | .00 | 65 | 79 | 81 | 85 | 86 | 83 |
| MIN | 57 | .00 | .00 | .00 | .00 | .00 | .00 | 59 | 76 | 78 | 80 | 73 |
| AC-FT | 3960 | 151 | .00 | .00 | .00 | .00 | 1420 | 4110 | 4670 | 5000 | 5120 | 4720 |

CAL YR 1979 TOTAL 13123.00 MEAN 36.0 MAX 80 MIN .00 AC-FT 26030
WTR YR 1980 TOTAL 14688.00 MEAN 40.1 MAX 86 MIN .00 AC-FT 29130

NOTE.--NO GAGE-HEIGHT RECORD JUNE 6 TO JULY 17.

## 09108500 TAYLOR PARK RESERVOIR AT TAYLOR PARK, CO

LOCATION.--Lat 38°49'07", long 106°36'24", Gunnison County, Hydrologic Unit 14020001, at dam on Taylor River just downstream from Taylor Park, 16 mi (26 km) northeast of Almont.

DRAINAGE AREA.--254 mi² (658 km²).

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1938, published in WSP 1313.

REVISED RECORDS.--WSP 1089: 1940(M), 1942(M), 1945-46. WSP 1924: Drainage area.

GAGE.--Nonrecording gage read once or twice daily. Datum of gage is 9,187 ft (2,800.2 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by an earth and rockfill dam. Dam completed by Water and Power Resources Service in September 1937. Capacity of reservoir, 106,200 acre-ft (131 hm³) between elevations 9,187 ft (2,800.2 m), bottom of outlet gates, and 9,330 ft (3,843.8 m), crest of spillway. No dead storage. Water used for irrigation in Uncompahgre Valley. Figures given are usable contents.

COOPERATION.--Records furnished by Uncompahgre Valley Water Users Association.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 111,000 acre-ft (137 hm³) July 1, 1957, elevation, 9,332.35 ft (2,844.500 m); minimum after first filling, 8,780 acre-ft (10.8 hm³) Oct. 19, 20, 1956, elevation, 9,240.70 ft (2,816.565 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 108,300 acre-ft (134 hm³) July 3, 4, elevation, 9,331.00 ft (2,844.089 m); minimum, 46,780 acre-ft (57.7 hm³), May 18-20, elevation, 9,293.30 ft (2,832.598 m).

CORRECTIONS.--The monthend contents in acre-ft for June 1979 was published in error, the correct figure is 108,700 acre-ft. The correct figure for change in contents for April 1979 is -10,740 acre-ft. These figures supersede those published in the report for 1979.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1800, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Date | Elevation | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30 | 9,321.10 | 88,890 | - |
| Oct. 31 | 9,317.60 | 82,760 | -6,130 |
| Nov. 30 | 9,315.80 | 79,660 | -3,100 |
| Dec. 31 | 9,313.50 | 75,750 | -3,910 |
| CAL YR 1979 | | | +16,020 |
| Jan. 31 | 9,311.30 | 72,060 | -3,690 |
| Feb. 29 | 9,311.30 | 72,060 | 0 |
| Mar. 31 | 9,308.20 | 66,930 | -5,130 |
| Apr. 30 | 9,294.20 | 47,890 | -19,040 |
| May 31 | 9,299.60 | 54,650 | +6,760 |
| June 30 | 9,330.20 | 106,600 | +51,950 |
| July 31 | 9,330.20 | 106,600 | 0 |
| Aug. 31 | 9,324.00 | 94,180 | -12,420 |
| Sept. 30 | 9,311.60 | 72,560 | -21,620 |
| WTR YR 1980 | | | -16,330 |

## 09109000 TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO

LOCATION.--Lat 38°49'06", long 106°36'31", Gunnison County, Hydrologic Unit 14020001, on left bank 1,000 ft (300 m) downstream from Taylor Park Reservoir Dam, 3.4 mi (5.5 km) upstream from Lottis Creek, and 17 mi (27 km) northeast of Almont.

DRAINAGE AREA.--254 mi² (658 km²).

PERIOD OF RECORD.--June 1929 to September 1934 (monthly discharges only, published in WSP 1313), October 1938 to current year.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 9,169.67 ft (2,794.915 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Prior to Nov. 11, 1952, at site 1,600 ft (490 m) downstream at datum 1.00 ft (0.305 m) lower. Oct. 15, 1946, to May 4, 1952, supplementary nonrecording gage just downstream from reservoir outlet at different sites and datums used during winter months.

REMARKS.--Records good, except those for period of no gage-height record, which are fair. Flow regulated by Taylor Park Reservoir (station 09108500) since 1937. One small diversion for irrigation from Willow Creek above reservoir. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years (water years 1930-34), 156 ft³/s (4.418 m³/s), 113,000 acre-ft/yr (139 hm³/yr); 42 years (water years 1939-80), 192 ft³/s (5.437 m³/s), 139,100 acre-ft/yr (172 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,270 ft³/s (64.3 m³/s) July 1, 1957, gage height, 7.56 ft (2.304 m); no flow May 1 to July 3, 1940, May 7-22, 1942, May 5-21, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 734 ft³/s (20.8 m³/s) July 3, gage height, 5.19 ft (1.582 m); minimum daily, 27 ft³/s (0.76 m³/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 363 | 64 | 134 | 132 | 136 | 58 | 391 | 379 | 390 | 382 | 239 | 374 |
| 2 | 176 | 100 | 134 | 132 | 138 | 58 | 391 | 378 | 390 | 553 | 238 | 369 |
| 3 | 36 | 112 | 134 | 132 | 138 | 59 | 391 | 379 | 390 | 646 | 232 | 366 |
| 4 | 27 | 135 | 134 | 132 | 138 | 59 | 388 | 380 | 390 | 646 | 216 | 367 |
| 5 | 29 | 162 | 132 | 132 | 138 | 59 | 388 | 380 | 391 | 610 | 215 | 366 |
| 6 | 136 | 152 | 132 | 132 | 138 | 59 | 388 | 384 | 395 | 569 | 215 | 367 |
| 7 | 367 | 150 | 132 | 134 | 138 | 59 | 388 | 391 | 396 | 534 | 219 | 368 |
| 8 | 366 | 147 | 132 | 134 | 138 | 59 | 388 | 391 | 400 | 521 | 229 | 374 |
| 9 | 367 | 147 | 132 | 134 | 138 | 59 | 388 | 392 | 402 | 511 | 216 | 367 |
| 10 | 366 | 148 | 132 | 134 | 138 | 59 | 388 | 393 | 407 | 499 | 215 | 366 |
| 11 | 332 | 147 | 132 | 134 | 138 | 59 | 384 | 394 | 372 | 471 | 205 | 392 |
| 12 | 293 | 147 | 132 | 134 | 140 | 59 | 384 | 393 | 247 | 443 | 243 | 471 |
| 13 | 258 | 145 | 132 | 134 | 140 | 60 | 384 | 391 | 228 | 423 | 326 | 471 |
| 14 | 214 | 144 | 130 | 134 | 112 | 60 | 384 | 391 | 226 | 418 | 367 | 468 |
| 15 | 160 | 144 | 130 | 134 | 70 | 60 | 384 | 389 | 227 | 394 | 375 | 469 |
| 16 | 142 | 144 | 130 | 134 | 57 | 60 | 384 | 389 | 229 | 366 | 380 | 468 |
| 17 | 152 | 146 | 130 | 134 | 57 | 60 | 384 | 389 | 229 | 343 | 383 | 472 |
| 18 | 153 | 144 | 130 | 134 | 57 | 60 | 380 | 388 | 230 | 325 | 381 | 480 |
| 19 | 135 | 141 | 130 | 134 | 57 | 86 | 380 | 388 | 229 | 310 | 379 | 482 |
| 20 | 149 | 136 | 130 | 134 | 57 | 142 | 380 | 389 | 230 | 297 | 377 | 481 |
| 21 | 151 | 136 | 130 | 136 | 57 | 196 | 380 | 389 | 230 | 252 | 369 | 482 |
| 22 | 145 | 136 | 130 | 136 | 58 | 242 | 380 | 390 | 231 | 137 | 372 | 482 |
| 23 | 120 | 136 | 130 | 136 | 58 | 284 | 377 | 392 | 232 | 176 | 380 | 480 |
| 24 | 127 | 136 | 132 | 136 | 58 | 326 | 377 | 393 | 232 | 313 | 381 | 479 |
| 25 | 138 | 136 | 132 | 136 | 58 | 372 | 377 | 394 | 230 | 319 | 380 | 474 |
| 26 | 101 | 134 | 132 | 136 | 58 | 394 | 376 | 392 | 230 | 294 | 378 | 482 |
| 27 | 46 | 134 | 132 | 136 | 58 | 394 | 377 | 390 | 231 | 274 | 377 | 481 |
| 28 | 43 | 134 | 132 | 136 | 58 | 391 | 378 | 392 | 231 | 250 | 378 | 482 |
| 29 | 30 | 134 | 132 | 135 | 58 | 391 | 378 | 391 | 231 | 227 | 377 | 482 |
| 30 | 28 | 134 | 132 | 136 | --- | 391 | 379 | 391 | 236 | 241 | 378 | 481 |
| 31 | 30 | --- | 132 | 136 | --- | 391 | --- | 390 | --- | 242 | 377 | --- |
| TOTAL | 5180 | 4105 | 4080 | 4164 | 2784 | 5066 | 11496 | 12052 | 8712 | 11986 | 9797 | 13143 |
| MEAN | 167 | 137 | 132 | 134 | 96.0 | 163 | 383 | 389 | 290 | 387 | 316 | 438 |
| MAX | 367 | 162 | 134 | 136 | 140 | 394 | 391 | 394 | 407 | 646 | 383 | 482 |
| MIN | 27 | 64 | 130 | 132 | 57 | 58 | 376 | 378 | 226 | 137 | 205 | 366 |
| AC-FT | 10270 | 8140 | 8090 | 8260 | 5520 | 10050 | 22800 | 23910 | 17280 | 23770 | 19430 | 26070 |

CAL YR 1979 TOTAL 79561 MEAN 218 MAX 928 MIN 27 AC-FT 157800
WTR YR 1980 TOTAL 92565 MEAN 253 MAX 646 MIN 27 AC-FT 183600

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 TO APR. 22.

## 09110000 TAYLOR RIVER AT ALMONT, CO

LOCATION.--Lat 38°39'52", long 106°50'41", in NW¼SE¼ sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic unit 14020001, on left bank at Almont, 15 ft (5 m) downstream from bridge on State Highway 306, and 800 ft (240 m) upstream from confluence with East River.

DRAINAGE AREA.--477 mi$^2$ (1,235 km$^2$).

PERIOD OF RECORD.--July 1910 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1911. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,010.76 ft (2,441.680 m), National Geodetic Vertical Datum of 1929. Prior to Apr. 16, 1922, nonrecording gage at same site and datum.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow partly regulated since September 1937 by Taylor Park Reservoir (station 09108500), 24 mi (39 km) above station. Diversions for irrigation of about 360 acres (1.46 km$^2$) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--70 years, 335 ft$^3$/s (9.487 m$^3$/s), 242,700 acre-ft/yr (299 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 3,760 ft$^3$/s (106 m$^3$/s) June 9, 1920, gage height, 5.00 ft (1.524 m), from rating curve extended above 2,300 ft$^3$/s (65 m$^3$/s); maximum gage height, 5.32 ft (1.622 m) July 1, 1957; minimum discharge observed before storage began in Taylor Park Reservoir, 50 ft$^3$/s (1.42 m$^3$/s) for several days in August 1913, gage height, 1.2 ft (0.366 m); minimum daily, 24 ft$^3$/s (0.68 m$^3$/s) Mar. 12, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,520 ft$^3$/s (43.0 m$^3$/s) at 0300 June 11, gage height, 3.87 ft (1.180 m); minimum daily, 90 ft$^3$/s (2.55 m$^3$/s) Feb. 17, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 453 | 170 | 190 | 190 | 180 | 92 | 560 | 619 | 943 | 689 | 354 | 469 |
| 2 | 350 | 190 | 190 | 190 | 180 | 92 | 560 | 605 | 935 | 897 | 350 | 459 |
| 3 | 149 | 210 | 180 | 180 | 180 | 92 | 560 | 618 | 964 | 1000 | 346 | 457 |
| 4 | 117 | 230 | 190 | 180 | 180 | 93 | 560 | 649 | 1020 | 995 | 325 | 453 |
| 5 | 123 | 260 | 190 | 180 | 180 | 94 | 560 | 666 | 1080 | 939 | 321 | 455 |
| 6 | 168 | 250 | 180 | 180 | 180 | 94 | 550 | 691 | 1150 | 876 | 321 | 457 |
| 7 | 456 | 240 | 180 | 180 | 180 | 92 | 550 | 743 | 1130 | 825 | 318 | 463 |
| 8 | 457 | 240 | 180 | 180 | 180 | 92 | 550 | 757 | 1140 | 814 | 333 | 475 |
| 9 | 461 | 240 | 180 | 180 | 180 | 92 | 550 | 745 | 1240 | 789 | 314 | 495 |
| 10 | 471 | 240 | 180 | 180 | 180 | 92 | 550 | 724 | 1350 | 774 | 311 | 522 |
| 11 | 450 | 240 | 180 | 180 | 180 | 92 | 560 | 725 | 1400 | 735 | 312 | 540 |
| 12 | 402 | 240 | 190 | 180 | 180 | 92 | 550 | 716 | 1180 | 707 | 320 | 615 |
| 13 | 355 | 240 | 180 | 190 | 190 | 92 | 550 | 661 | 1080 | 673 | 415 | 605 |
| 14 | 309 | 240 | 180 | 180 | 120 | 92 | 550 | 650 | 1020 | 665 | 502 | 597 |
| 15 | 256 | 230 | 180 | 180 | 92 | 92 | 550 | 649 | 947 | 616 | 528 | 594 |
| 16 | 219 | 230 | 180 | 180 | 92 | 92 | 540 | 650 | 877 | 571 | 521 | 590 |
| 17 | 232 | 230 | 180 | 180 | 90 | 92 | 540 | 675 | 845 | 534 | 519 | 595 |
| 18 | 237 | 230 | 180 | 180 | 92 | 93 | 540 | 652 | 843 | 502 | 517 | 605 |
| 19 | 219 | 220 | 180 | 180 | 92 | 140 | 540 | 698 | 837 | 470 | 515 | 605 |
| 20 | 232 | 210 | 180 | 180 | 90 | 220 | 540 | 768 | 798 | 449 | 509 | 603 |
| 21 | 244 | 210 | 180 | 180 | 92 | 300 | 540 | 824 | 773 | 430 | 499 | 600 |
| 22 | 232 | 200 | 180 | 180 | 92 | 350 | 550 | 906 | 747 | 307 | 497 | 600 |
| 23 | 210 | 200 | 180 | 180 | 92 | 420 | 578 | 992 | 728 | 276 | 514 | 599 |
| 24 | 213 | 200 | 180 | 180 | 92 | 470 | 578 | 1020 | 714 | 432 | 518 | 598 |
| 25 | 223 | 190 | 180 | 180 | 92 | 540 | 553 | 985 | 690 | 477 | 514 | 585 |
| 26 | 212 | 190 | 183 | 180 | 92 | 560 | 552 | 919 | 683 | 433 | 498 | 591 |
| 27 | 164 | 190 | 183 | 180 | 92 | 560 | 564 | 867 | 663 | 402 | 492 | 590 |
| 28 | 145 | 190 | 183 | 180 | 92 | 560 | 602 | 848 | 628 | 374 | 487 | 588 |
| 29 | 130 | 190 | 183 | 180 | 92 | 560 | 637 | 886 | 590 | 349 | 483 | 585 |
| 30 | 123 | 190 | 183 | 180 | --- | 560 | 648 | 889 | 570 | 360 | 481 | 585 |
| 31 | 150 | --- | 183 | 180 | --- | 560 | --- | 920 | --- | 361 | 479 | --- |
| TOTAL | 8162 | 6530 | 5648 | 5610 | 3846 | 7462 | 16812 | 23717 | 27565 | 18721 | 13413 | 16575 |
| MEAN | 263 | 218 | 182 | 181 | 133 | 241 | 560 | 765 | 919 | 604 | 433 | 553 |
| MAX | 471 | 260 | 190 | 190 | 190 | 560 | 648 | 1020 | 1400 | 1000 | 528 | 615 |
| MIN | 117 | 170 | 190 | 180 | 90 | 92 | 540 | 605 | 570 | 276 | 311 | 453 |
| AC-FT | 16190 | 12950 | 11200 | 11130 | 7630 | 14800 | 33350 | 47040 | 54680 | 37130 | 26600 | 32880 |

CAL YR 1979 TOTAL 139886 MEAN 383 MAX 1690 MIN 100 AC-FT 277500
WTR YR 1980 TOTAL 154061 MEAN 421 MAX 1400 MIN 90 AC-FT 305600

NOTE.--NO GAGE-HEIGHT RECORD OCT. 31 TO APR. 22.

## 09112200 EAST RIVER BELOW CEMENT CREEK. NEAR CRESTED BUTTE. CO

LOCATION.--Lat 38°47'24". long 106°52'21". in SE¼SE¼ sec.34. T.14 S.. R.85 W.. Gunnison County. Hydrologic Unit 14020001. on left bank 15 ft (4.57 m) below private bridge. 1.1 mi (1.8 km) downstream from Cement Creek and 8 mi (13 km) southeast of Crested Butte.

DRAINAGE AREA.--235 mi (609 km) from topographic maps.

PERIOD OF RECORD.--October 1963 to September 1972. October 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8.450 ft (2.576 m) from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record and those for winter period. which are poor. Diversions for irrigation of about 4.500 acres (18.2 km) above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--10 years (water years 1963-72. 1980). 333 ft$^3$/s (9.431 m$^3$/s). 241.300 acre-ft/yr (298 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge. 3.360 ft$^3$/s (95.2 m$^3$/s) June 12. 1980. gage height. 8.30 ft (2.530 m). from floodmarks; minimum daily. 38 ft$^3$/s (1.08 m$^3$/s) Jan. 14. 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge. 3.360 ft$^3$/s (95.2 m$^3$/s) June 12. gage height. 8.30 ft (2.530 m). from floodmark. only peak above base of 1.500 ft$^3$/s (42.5 m$^3$/s); minimum daily. 51 ft$^3$/s (1.44 m$^3$/s) Feb. 29.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 102 | 76 | 66 | 62 | 62 | 53 | 58 | 574 | 1680 | 1400 | 300 | 139 |
| 2 | 101 | 83 | 70 | 62 | 62 | 55 | 59 | 605 | 1700 | 1400 | 280 | 138 |
| 3 | 102 | 81 | 82 | 62 | 62 | 56 | 56 | 698 | 1760 | 1300 | 270 | 130 |
| 4 | 102 | 87 | 82 | 62 | 62 | 58 | 57 | 808 | 1890 | 1300 | 260 | 124 |
| 5 | 101 | 87 | 82 | 63 | 65 | 58 | 58 | 829 | 2030 | 1300 | 260 | 118 |
| 6 | 100 | 87 | 81 | 63 | 65 | 58 | 59 | 897 | 2040 | 1200 | 250 | 115 |
| 7 | 100 | 100 | 82 | 63 | 67 | 60 | 57 | 997 | 2000 | 1100 | 249 | 116 |
| 8 | 100 | 100 | 83 | 63 | 62 | 59 | 56 | 1050 | 2000 | 1000 | 240 | 122 |
| 9 | 100 | 94 | 80 | 63 | 62 | 58 | 57 | 1050 | 2200 | 980 | 233 | 139 |
| 10 | 99 | 96 | 80 | 61 | 63 | 58 | 61 | 955 | 2400 | 883 | 220 | 163 |
| 11 | 96 | 90 | 80 | 57 | 64 | 54 | 57 | 931 | 2500 | 864 | 218 | 186 |
| 12 | 96 | 80 | 82 | 59 | 62 | 56 | 55 | 845 | 2600 | 840 | 209 | 160 |
| 13 | 94 | 69 | 73 | 59 | 62 | 56 | 56 | 730 | 2620 | 827 | 195 | 148 |
| 14 | 94 | 68 | 71 | 60 | 64 | 55 | 57 | 749 | 2620 | 750 | 196 | 133 |
| 15 | 94 | 76 | 70 | 61 | 62 | 55 | 64 | 772 | 2390 | 706 | 219 | 125 |
| 16 | 94 | 80 | 68 | 67 | 64 | 55 | 70 | 807 | 2270 | 659 | 220 | 119 |
| 17 | 93 | 80 | 64 | 72 | 61 | 54 | 72 | 879 | 2060 | 600 | 191 | 120 |
| 18 | 95 | 86 | 62 | 69 | 60 | 52 | 82 | 835 | 1900 | 580 | 184 | 115 |
| 19 | 98 | 90 | 62 | 67 | 62 | 57 | 112 | 952 | 1900 | 540 | 175 | 112 |
| 20 | 98 | 95 | 66 | 67 | 60 | 56 | 156 | 1150 | 1980 | 520 | 171 | 108 |
| 21 | 108 | 88 | 68 | 66 | 60 | 54 | 206 | 1500 | 1900 | 490 | 172 | 106 |
| 22 | 99 | 84 | 68 | 64 | 58 | 56 | 268 | 1820 | 1800 | 450 | 170 | 103 |
| 23 | 99 | 84 | 68 | 64 | 57 | 56 | 331 | 1910 | 1800 | 430 | 168 | 103 |
| 24 | 98 | 83 | 70 | 66 | 56 | 56 | 341 | 1770 | 1700 | 420 | 175 | 104 |
| 25 | 98 | 82 | 71 | 67 | 56 | 59 | 364 | 1540 | 1700 | 410 | 183 | 100 |
| 26 | 98 | 82 | 71 | 69 | 54 | 57 | 426 | 1530 | 1700 | 400 | 205 | 98 |
| 27 | 98 | 84 | 71 | 69 | 52 | 57 | 458 | 1540 | 1600 | 390 | 176 | 97 |
| 28 | 94 | 82 | 73 | 69 | 52 | 57 | 535 | 1600 | 1600 | 360 | 162 | 94 |
| 29 | 91 | 80 | 70 | 65 | 51 | 57 | 606 | 1710 | 1600 | 350 | 154 | 92 |
| 30 | 91 | 73 | 68 | 60 | --- | 56 | 613 | 1700 | 1400 | 340 | 150 | 92 |
| 31 | 80 | --- | 66 | 60 | --- | 58 | --- | 1760 | --- | 320 | 145 | --- |
| TOTAL | 3013 | 2527 | 2250 | 1981 | 1749 | 1746 | 5507 | 35493 | 59340 | 23109 | 6400 | 3619 |
| MEAN | 97.2 | 84.2 | 72.6 | 63.9 | 60.3 | 56.3 | 184 | 1145 | 1978 | 745 | 206 | 121 |
| MAX | 108 | 100 | 83 | 72 | 67 | 60 | 613 | 1910 | 2620 | 1400 | 300 | 186 |
| MIN | 80 | 68 | 62 | 57 | 51 | 52 | 55 | 574 | 1400 | 320 | 145 | 92 |
| AC-FT | 5980 | 5010 | 4460 | 3930 | 3470 | 3460 | 10920 | 70400 | 117700 | 45840 | 12690 | 7180 |

WTR YR 1980 TOTAL 146734 MEAN 401 MAX 2620 MIN 51 AC-FT 291000

NOTE.--NO GAGE-HEIGHT RECORD FEB. 9 TO MAR. 18. JUNE 7-12.

## 09112500 EAST RIVER AT ALMONT, CO

LOCATION.--Lat 38°39'52", long 106°50'51", in NW¼SE¼ sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020001, on left bank at Almont, 200 ft (61 m) upstream from bridge on State Highway 135, and 400 ft (120 m) upstream from confluence with Taylor River.

DRAINAGE AREA.--289 $mi^2$ (749 $km^2$).

PERIOD OF RECORD.--April to October 1905, July 1910 to September 1922, October 1934 to current year. Monthly discharges only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1911. WSP 1733: 1952. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,006.29 ft (2,440.317 m), National Geodetic Vertical Datum of 1929. Apr. 16 to Sept. 30, 1905, and July 27, 1910, to Apr. 30, 1922, nonrecording gages at bridge 200 ft (61 m) downstream at different datums. Oct. 1, 1934, to Sept. 22, 1954, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 7,400 acres (29.9 $km^2$) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--58 years (water years 1911-22, 1935-80), 338 $ft^3/s$ (9.572 $m^3/s$), 244,900 acre-ft/yr (302 $hm^3/yr$).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 6,500 $ft^3/s$ (184 $m^3/s$) June 15, 1921, gage height, 6.6 ft (2.01 m), site and datum then in use, from rating curve extended above 3,000 $ft^3/s$ (85 $m^3/s$); minimum daily, 19 $ft^3/s$ (0.54 $m^3/s$) Aug. 13, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,130 $ft^3/s$ (88.6 $m^3/s$) at 0900 June 12, gage height, 7.09 ft (2.161 m), only peak above base of 1,600 $ft^3/s$ (45 $m^3/s$); minimum daily, 48 $ft^3/s$ (1.36 $m^3/s$) Dec. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 90 | 86 | 75 | 57 | 67 | 62 | 71 | 681 | 1640 | 1580 | 306 | 151 |
| 2 | 86 | 95 | 72 | 66 | 71 | 64 | 72 | 659 | 1580 | 1570 | 294 | 145 |
| 3 | 85 | 91 | 94 | 68 | 74 | 67 | 72 | 741 | 1650 | 1500 | 283 | 136 |
| 4 | 82 | 100 | 98 | 70 | 80 | 67 | 72 | 888 | 1840 | 1410 | 275 | 129 |
| 5 | 81 | 100 | 100 | 68 | 74 | 67 | 72 | 931 | 2090 | 1290 | 263 | 125 |
| 6 | 82 | 99 | 102 | 68 | 74 | 69 | 74 | 974 | 2270 | 1170 | 245 | 123 |
| 7 | 85 | 114 | 105 | 68 | 72 | 69 | 75 | 1090 | 2080 | 1090 | 224 | 113 |
| 8 | 88 | 118 | 96 | 70 | 72 | 69 | 72 | 1120 | 2090 | 1040 | 220 | 113 |
| 9 | 89 | 109 | 78 | 70 | 72 | 69 | 71 | 1160 | 2360 | 1010 | 226 | 115 |
| 10 | 89 | 110 | 87 | 68 | 72 | 67 | 74 | 1060 | 2640 | 938 | 226 | 132 |
| 11 | 89 | 99 | 88 | 68 | 75 | 64 | 77 | 990 | 2800 | 894 | 215 | 157 |
| 12 | 90 | 91 | 87 | 68 | 70 | 67 | 74 | 952 | 2800 | 872 | 208 | 144 |
| 13 | 92 | 90 | 79 | 69 | 72 | 66 | 73 | 801 | 2710 | 856 | 204 | 141 |
| 14 | 92 | 90 | 65 | 69 | 74 | 66 | 76 | 764 | 2600 | 830 | 202 | 131 |
| 15 | 92 | 92 | 51 | 69 | 72 | 67 | 78 | 776 | 2370 | 759 | 199 | 126 |
| 16 | 91 | 92 | 58 | 71 | 72 | 67 | 80 | 788 | 2140 | 686 | 218 | 122 |
| 17 | 92 | 90 | 57 | 75 | 70 | 66 | 84 | 859 | 2020 | 617 | 215 | 120 |
| 18 | 101 | 97 | 49 | 75 | 69 | 66 | 88 | 818 | 2030 | 575 | 202 | 117 |
| 19 | 103 | 102 | 52 | 75 | 72 | 68 | 100 | 870 | 2130 | 550 | 201 | 114 |
| 20 | 104 | 106 | 54 | 75 | 69 | 69 | 134 | 994 | 2100 | 534 | 194 | 113 |
| 21 | 116 | 100 | 59 | 74 | 69 | 68 | 174 | 1250 | 2020 | 505 | 195 | 107 |
| 22 | 115 | 92 | 57 | 72 | 67 | 68 | 244 | 1630 | 1940 | 475 | 190 | 103 |
| 23 | 115 | 89 | 54 | 52 | 67 | 69 | 318 | 1850 | 1900 | 458 | 190 | 102 |
| 24 | 110 | 90 | 62 | 58 | 66 | 68 | 359 | 2010 | 1880 | 443 | 192 | 98 |
| 25 | 112 | 99 | 63 | 65 | 65 | 69 | 358 | 1730 | 1830 | 436 | 196 | 94 |
| 26 | 112 | 97 | 65 | 74 | 65 | 69 | 438 | 1550 | 1840 | 426 | 211 | 92 |
| 27 | 112 | 92 | 60 | 78 | 62 | 68 | 485 | 1490 | 1830 | 406 | 195 | 93 |
| 28 | 108 | 84 | 58 | 81 | 61 | 69 | 553 | 1470 | 1720 | 383 | 183 | 92 |
| 29 | 105 | 82 | 48 | 73 | 60 | 69 | 647 | 1610 | 1570 | 355 | 172 | 91 |
| 30 | 105 | 81 | 52 | 69 | --- | 69 | 698 | 1560 | 1570 | 330 | 168 | 89 |
| 31 | 93 | --- | 50 | 67 | --- | 71 | --- | 1630 | --- | 318 | 163 | --- |
| TOTAL | 3006 | 2877 | 2175 | 2150 | 2025 | 2093 | 5863 | 35696 | 62040 | 24306 | 6675 | 3528 |
| MEAN | 97.0 | 95.9 | 70.2 | 69.4 | 69.8 | 67.5 | 195 | 1151 | 2068 | 784 | 215 | 118 |
| MAX | 116 | 118 | 105 | 81 | 80 | 71 | 698 | 2010 | 2800 | 1580 | 306 | 157 |
| MIN | 81 | 81 | 48 | 52 | 60 | 62 | 71 | 659 | 1570 | 318 | 163 | 89 |
| AC-FT | 5960 | 5710 | 4310 | 4260 | 4020 | 4150 | 11630 | 70800 | 123100 | 48210 | 13240 | 7000 |

CAL YR 1979 TOTAL 157884 MEAN 433 MAX 3100 MIN 48 AC-FT 313200
WTR YR 1980 TOTAL 152434 MEAN 416 MAX 2800 MIN 48 AC-FT 302400

## 09113500 OHIO CREEK NEAR BALDWIN, CO

LOCATION.--Lat 38°42'08", long 106°59'52", in NE¼SE¼ sec.33, T.15 S., R.86 W., Gunnison County, Hydrologic Unit 14020002, on right bank 600 ft (183 m) upstream from bridge, 800 ft (244 m) downstream from Mill Creek, 5.5 mi (8.8 km) southeast of Baldwin, and 11 mi (18 km) upstream from mouth.

DRAINAGE AREA.--121 mi² (313 km²).

PERIOD OF RECORD.--April 1940 to September 1950, October 1958 to September 1971, October 1979 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WDR CO-67-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,230 ft (2,509 m) from topographic map. Prior to Apr. 3, 1942, nonrecording gage at present site and datum. Apr. 3, 1942, to Sept. 30, 1950, Oct. 1, 1958 to Sept. 30, 1971, water-stage recorder at present site and datum.

REMARKS.--Records good except those for winter periods, which are poor. Diversions for irrigation of 3,850 acres (15.6 km²) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years (water years 1941-50, 1959-71, 1980), 90.4 ft³/s (2.560 m³/s), 65,490 acre-ft/yr (80.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,260 ft³/s (35.7 m³/s), May 19, 1948, gage height, 4.65 ft (1.417 m), from rating curve extended above 560 ft³/s (15.9 m³/s); minimum daily, 6.9 ft³/s (0.195 m³/s) Sept. 12, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in May 1952 and June 1957 reached a stage of 5.5 ft (1.676 m), from floodmarks, discharge, about 1,500 ft³/s (42.5 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft³/s (28.6 m³/s) at 2300 May 23, gage height, 4.24 ft (1.292 m), only peak above base of 450 ft³/s (13 m³/s); minimum daily, 11 ft³/s (0.31 m³/s) Oct. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | 18 | 13 | 14 | 14 | 14 | 18 | 335 | 573 | 375 | 53 | 26 |
| 2 | 14 | 22 | 14 | 14 | 15 | 14 | 18 | 335 | 535 | 387 | 53 | 24 |
| 3 | 15 | 23 | 18 | 15 | 16 | 15 | 18 | 393 | 576 | 342 | 54 | 23 |
| 4 | 15 | 21 | 19 | 16 | 18 | 16 | 19 | 472 | 632 | 310 | 55 | 23 |
| 5 | 15 | 16 | 20 | 15 | 16 | 16 | 20 | 460 | 678 | 271 | 51 | 23 |
| 6 | 14 | 19 | 20 | 15 | 15 | 17 | 19 | 518 | 696 | 238 | 41 | 18 |
| 7 | 13 | 17 | 19 | 15 | 15 | 17 | 18 | 515 | 635 | 238 | 40 | 18 |
| 8 | 13 | 18 | 17 | 14 | 15 | 17 | 18 | 539 | 643 | 266 | 41 | 20 |
| 9 | 12 | 18 | 15 | 15 | 15 | 16 | 17 | 535 | 717 | 233 | 41 | 28 |
| 10 | 11 | 17 | 16 | 14 | 15 | 15 | 18 | 498 | 782 | 219 | 39 | 36 |
| 11 | 11 | 17 | 16 | 15 | 16 | 14 | 20 | 460 | 807 | 210 | 36 | 38 |
| 12 | 12 | 24 | 16 | 14 | 15 | 16 | 19 | 370 | 799 | 199 | 36 | 34 |
| 13 | 12 | 25 | 15 | 14 | 15 | 16 | 18 | 298 | 737 | 215 | 36 | 32 |
| 14 | 13 | 25 | 16 | 15 | 16 | 15 | 19 | 298 | 671 | 175 | 44 | 29 |
| 15 | 15 | 26 | 17 | 15 | 16 | 15 | 19 | 300 | 609 | 153 | 59 | 28 |
| 16 | 15 | 25 | 17 | 16 | 15 | 15 | 20 | 300 | 536 | 135 | 47 | 27 |
| 17 | 14 | 24 | 16 | 16 | 15 | 15 | 30 | 355 | 519 | 123 | 39 | 26 |
| 18 | 18 | 24 | 16 | 16 | 15 | 15 | 51 | 313 | 536 | 115 | 35 | 25 |
| 19 | 16 | 22 | 16 | 16 | 16 | 16 | 96 | 376 | 535 | 108 | 33 | 24 |
| 20 | 16 | 19 | 17 | 16 | 15 | 16 | 150 | 448 | 513 | 99 | 32 | 23 |
| 21 | 21 | 18 | 17 | 16 | 16 | 16 | 160 | 552 | 525 | 89 | 31 | 23 |
| 22 | 15 | 16 | 17 | 16 | 15 | 16 | 156 | 707 | 477 | 82 | 30 | 23 |
| 23 | 16 | 17 | 18 | 15 | 15 | 17 | 174 | 806 | 469 | 80 | 30 | 23 |
| 24 | 16 | 17 | 17 | 16 | 14 | 16 | 158 | 779 | 447 | 76 | 33 | 23 |
| 25 | 15 | 18 | 17 | 16 | 13 | 16 | 155 | 628 | 432 | 78 | 35 | 23 |
| 26 | 15 | 19 | 17 | 16 | 13 | 17 | 180 | 539 | 433 | 73 | 38 | 24 |
| 27 | 15 | 19 | 17 | 17 | 13 | 16 | 244 | 512 | 429 | 66 | 33 | 23 |
| 28 | 14 | 17 | 16 | 16 | 13 | 16 | 298 | 525 | 388 | 61 | 31 | 22 |
| 29 | 16 | 16 | 16 | 15 | 14 | 15 | 313 | 587 | 345 | 56 | 28 | 20 |
| 30 | 17 | 15 | 15 | 15 | --- | 15 | 338 | 552 | 344 | 57 | 28 | 20 |
| 31 | 14 | --- | 15 | 14 | --- | 16 | --- | 580 | --- | 55 | 28 | --- |
| TOTAL | 452 | 592 | 515 | 472 | 434 | 486 | 2801 | 14885 | 17028 | 5184 | 1210 | 749 |
| MEAN | 14.6 | 19.7 | 16.6 | 15.2 | 15.0 | 15.7 | 93.4 | 480 | 967 | 167 | 39.0 | 25.0 |
| MAX | 21 | 26 | 20 | 17 | 18 | 17 | 338 | 806 | 807 | 387 | 59 | 38 |
| MIN | 11 | 15 | 13 | 14 | 13 | 14 | 17 | 298 | 344 | 55 | 28 | 18 |
| AC-FT | 897 | 1170 | 1020 | 936 | 861 | 964 | 5560 | 29520 | 33760 | 10280 | 2400 | 1490 |

WTR YR 1980 TOTAL 44798 MEAN 122 MAX 807 MIN 11 AC-FT 88860

NOTE.--NO GAGE-HEIGHT RECORD JAN. 29 TO MAR. 18.

## 09114500 GUNNISON RIVER NEAR GUNNISON, CO

LOCATION.--Lat 38°32'31", long 106°56'57", in NW¼NW¼ sec.2, T.49 N., R.1 W., Gunnison County, Hydrologic Unit 14020002, on right bank 0.7 mi (1.1 km) downstream from Antelope Creek and 1.2 mi (1.9 km) west of Gunnison.

DRAINAGE AREA.--1,012 mi$^2$ (2,621 km$^2$).

PERIOD OF RECORD.--October 1910 to December 1928, October 1944 to current year. Monthly discharges only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1911, 1916.

GAGE.--Water-stage recorder. Altitude of gage is 7,655 ft (2,333 m), from topographic map. Nov. 25, 1910, to Dec. 31, 1928, nonrecording gages (supplementary water-stage recorder Apr. 28, 1916, to June 17, 1918) at bridge about 0.6 mi (1.0 km) downstream at various datums. Oct. 1, 1944, to July 28, 1970, water-stage recorder at sites 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. Flow regulated by Taylor Park Reservoir (station 09108500), 37 mi (60 km) above station. Diversions for irrigation of about 22,000 acres (89.0 km$^2$) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--54 years (water years 1911-28, 1945-80), 760 ft$^3$/s (21.52 m$^3$/s) 550,600 acre-ft/yr (679 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 11,400 ft$^3$/s (323 m$^3$/s) June 13, 1918, gage height, 4.05 ft (1.234 m), site and datum then in use, from rating curve extended above 5,000 ft$^3$/s (140 m$^3$/s); minimum daily, 80 ft$^3$/s (2.27 m$^3$/s) Dec. 27, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,700 ft$^3$/s (133 m$^3$/s) at 0930 June 11, gage height, 4.85 ft (1.478 m); minimum daily, 150 ft$^3$/s (4.25 m$^3$/s) Feb. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 470 | 300 | 220 | 240 | 250 | 160 | 700 | 2010 | 2740 | 2350 | 690 | 700 |
| 2 | 310 | 350 | 240 | 240 | 260 | 160 | 700 | 1840 | 2610 | 2570 | 690 | 700 |
| 3 | 240 | 400 | 260 | 250 | 260 | 160 | 700 | 2080 | 2720 | 2630 | 681 | 684 |
| 4 | 217 | 400 | 270 | 260 | 270 | 170 | 700 | 2350 | 3100 | 2480 | 681 | 632 |
| 5 | 204 | 390 | 280 | 260 | 250 | 170 | 720 | 2380 | 3720 | 2200 | 645 | 623 |
| 6 | 210 | 380 | 280 | 250 | 240 | 170 | 740 | 2400 | 4190 | 1960 | 636 | 623 |
| 7 | 351 | 390 | 280 | 250 | 240 | 180 | 730 | 2610 | 3820 | 1610 | 588 | 629 |
| 8 | 412 | 400 | 270 | 260 | 230 | 180 | 700 | 2520 | 3680 | 1790 | 566 | 660 |
| 9 | 421 | 390 | 260 | 260 | 230 | 170 | 660 | 2550 | 3840 | 1730 | 569 | 668 |
| 10 | 428 | 390 | 270 | 250 | 230 | 170 | 680 | 2310 | 4340 | 1510 | 561 | 714 |
| 11 | 429 | 370 | 270 | 250 | 250 | 160 | 720 | 2190 | 4400 | 1390 | 532 | 855 |
| 12 | 416 | 370 | 270 | 250 | 240 | 170 | 700 | 2040 | 4250 | 1360 | 520 | 928 |
| 13 | 358 | 360 | 260 | 250 | 250 | 170 | 700 | 1620 | 4210 | 1380 | 568 | 882 |
| 14 | 326 | 340 | 250 | 250 | 250 | 170 | 700 | 1500 | 4110 | 1360 | 640 | 805 |
| 15 | 297 | 290 | 250 | 250 | 190 | 170 | 720 | 1430 | 3660 | 1160 | 689 | 806 |
| 16 | 253 | 280 | 250 | 260 | 190 | 170 | 760 | 1440 | 3100 | 1090 | 702 | 791 |
| 17 | 250 | 280 | 250 | 260 | 180 | 170 | 780 | 1610 | 2980 | 992 | 700 | 785 |
| 18 | 270 | 280 | 250 | 260 | 180 | 170 | 820 | 1500 | 2980 | 910 | 697 | 850 |
| 19 | 270 | 300 | 250 | 260 | 180 | 180 | 880 | 1640 | 3040 | 861 | 694 | 840 |
| 20 | 280 | 310 | 260 | 260 | 175 | 200 | 920 | 1840 | 3030 | 843 | 705 | 830 |
| 21 | 295 | 300 | 270 | 260 | 170 | 290 | 980 | 2310 | 2980 | 798 | 693 | 800 |
| 22 | 290 | 280 | 270 | 240 | 170 | 410 | 1080 | 3100 | 2880 | 717 | 685 | 800 |
| 23 | 280 | 280 | 260 | 240 | 170 | 500 | 1170 | 3640 | 2830 | 654 | 760 | 800 |
| 24 | 300 | 280 | 260 | 240 | 170 | 620 | 1260 | 3660 | 2790 | 690 | 817 | 740 |
| 25 | 300 | 290 | 270 | 250 | 160 | 660 | 1430 | 3080 | 2640 | 769 | 837 | 720 |
| 26 | 300 | 290 | 280 | 260 | 160 | 680 | 1540 | 2630 | 2680 | 807 | 864 | 720 |
| 27 | 290 | 280 | 270 | 270 | 160 | 700 | 1620 | 2310 | 2640 | 789 | 867 | 720 |
| 28 | 260 | 280 | 270 | 280 | 150 | 680 | 1830 | 2290 | 2460 | 735 | 844 | 720 |
| 29 | 240 | 270 | 250 | 280 | 150 | 680 | 2030 | 2570 | 2220 | 645 | 751 | 700 |
| 30 | 230 | 250 | 240 | 250 | --- | 670 | 2110 | 2630 | 2180 | 663 | 682 | 690 |
| 31 | 260 | --- | 240 | 240 | --- | 700 | --- | 2700 | --- | 690 | 693 | --- |
| TOTAL | 9457 | 9770 | 8070 | 7880 | 6005 | 10010 | 29780 | 70780 | 96820 | 40353 | 21249 | 22415 |
| MEAN | 305 | 326 | 260 | 254 | 207 | 323 | 993 | 2283 | 3227 | 1302 | 685 | 747 |
| MAX | 470 | 400 | 280 | 280 | 270 | 700 | 2110 | 3660 | 4400 | 2630 | 867 | 928 |
| MIN | 204 | 250 | 220 | 240 | 150 | 160 | 660 | 1430 | 2180 | 645 | 520 | 623 |
| AC-FT | 18760 | 19380 | 16010 | 15630 | 11910 | 19850 | 59070 | 140400 | 192000 | 80040 | 42150 | 44460 |

CAL YR 1979 TOTAL 332450 MEAN 911 MAX 4850 MIN 190 AC-FT 659400
WTR YR 1980 TOTAL 332589 MEAN 909 MAX 4400 MIN 150 AC-FT 659700

NOTE.--NO GAGE-HEIGHT RECORD OCT. 17 TO APR. 23.

## 09119000 TOMICHI CREEK AT GUNNISON, CO

LOCATION.--Lat 38°31'18", long 106°56'25", in NE¼SW¼ sec.11, T.49 N., R.1 W., Gunnison County, Hydrologic Unit 14020003, on right bank 300 ft (91 m) downstream from highway bridge, 1.8 mi (2.9 km) southwest of Post Office in Gunnison, and 2.0 mi (3.2 km) upstream from mouth.

DRAINAGE AREA.--1,061 mi² (2,748 km²).

PERIOD OF RECORD.--November and December 1910 (gage heights and discharge measurements only), October 1937 to current year. Monthly discharges only for some periods, published in WSP 1313. Published as "near Gunnison" 1910.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,628.58 ft (2,325.191 m), National Geodetic Vertical Datum of 1929. Nov. 25 to Dec. 24, 1910, nonrecording gage 300 ft (91 m) upstream at different datum. Apr. 20, 1938, to Oct. 2, 1940, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 24,000 acres (97.1 km²) above station. Water diverted above station by Larkspur ditch to Arkansas River basin since 1935 and by Tarbell ditch to Rio Grande basin since 1914 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--43 years (water years 1938-80), 167 ft³/s (4.729 m³/s), 121,000 acre-ft/yr (149 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft³/s (53.8 m³/s) June 8, 1957, gage height, 4.10 ft (1.250 m); maximum gage height, 4.18 ft (1.274 m) May 23, 1970; minimum daily discharge, 2.6 ft³/s (0.074 m³/s) Sept. 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft³/s (30.3 m³/s) at 2100 June 12, gage height, 3.90 ft (1.189 m); minimum daily, 25.0 ft³/s (0.71 m³/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 29 | 99 | 72 | 58 | 68 | 58 | 74 | 493 | 552 | 341 | 116 | 80 |
| 2 | 33 | 102 | 74 | 60 | 68 | 62 | 72 | 451 | 591 | 313 | 111 | 58 |
| 3 | 33 | 118 | 76 | 60 | 72 | 60 | 75 | 401 | 572 | 302 | 112 | 66 |
| 4 | 26 | 121 | 80 | 62 | 78 | 62 | 76 | 384 | 613 | 292 | 130 | 55 |
| 5 | 25 | 132 | 84 | 60 | 78 | 60 | 80 | 388 | 690 | 260 | 120 | 53 |
| 6 | 27 | 117 | 84 | 62 | 72 | 60 | 82 | 390 | 732 | 220 | 119 | 52 |
| 7 | 30 | 126 | 84 | 62 | 70 | 62 | 82 | 422 | 769 | 209 | 119 | 60 |
| 8 | 29 | 130 | 86 | 62 | 68 | 60 | 76 | 463 | 793 | 235 | 113 | 64 |
| 9 | 30 | 129 | 88 | 60 | 64 | 58 | 78 | 486 | 847 | 230 | 107 | 73 |
| 10 | 31 | 122 | 84 | 62 | 64 | 58 | 82 | 461 | 909 | 209 | 100 | 91 |
| 11 | 30 | 108 | 82 | 64 | 62 | 58 | 86 | 438 | 978 | 192 | 94 | 119 |
| 12 | 40 | 98 | 76 | 66 | 60 | 60 | 82 | 436 | 1040 | 194 | 92 | 115 |
| 13 | 47 | 100 | 72 | 68 | 62 | 54 | 82 | 428 | 1030 | 212 | 88 | 107 |
| 14 | 44 | 103 | 70 | 70 | 62 | 54 | 88 | 400 | 988 | 207 | 102 | 99 |
| 15 | 50 | 100 | 70 | 74 | 62 | 58 | 94 | 394 | 915 | 179 | 117 | 94 |
| 16 | 52 | 98 | 68 | 72 | 70 | 60 | 110 | 364 | 819 | 162 | 118 | 95 |
| 17 | 52 | 100 | 68 | 70 | 73 | 60 | 150 | 350 | 754 | 149 | 104 | 91 |
| 18 | 56 | 100 | 66 | 70 | 80 | 66 | 230 | 332 | 708 | 138 | 95 | 87 |
| 19 | 63 | 96 | 67 | 70 | 86 | 68 | 295 | 283 | 698 | 136 | 93 | 86 |
| 20 | 73 | 98 | 68 | 68 | 82 | 68 | 410 | 287 | 657 | 139 | 89 | 74 |
| 21 | 88 | 98 | 68 | 66 | 76 | 70 | 410 | 321 | 607 | 148 | 85 | 67 |
| 22 | 96 | 92 | 66 | 64 | 72 | 72 | 440 | 356 | 561 | 142 | 83 | 67 |
| 23 | 106 | 88 | 68 | 63 | 70 | 74 | 530 | 450 | 523 | 132 | 87 | 62 |
| 24 | 108 | 88 | 66 | 64 | 66 | 78 | 490 | 599 | 466 | 158 | 102 | 63 |
| 25 | 115 | 94 | 66 | 64 | 64 | 76 | 359 | 712 | 441 | 202 | 118 | 64 |
| 26 | 109 | 94 | 66 | 64 | 56 | 72 | 336 | 725 | 430 | 194 | 125 | 63 |
| 27 | 104 | 90 | 64 | 66 | 54 | 72 | 319 | 699 | 412 | 161 | 110 | 63 |
| 28 | 102 | 84 | 64 | 70 | 54 | 72 | 340 | 627 | 374 | 145 | 100 | 62 |
| 29 | 101 | 80 | 62 | 73 | 54 | 72 | 432 | 591 | 343 | 138 | 89 | 61 |
| 30 | 115 | 74 | 60 | 74 | --- | 74 | 495 | 595 | 328 | 135 | 88 | 61 |
| 31 | 107 | --- | 60 | 70 | --- | 75 | --- | 561 | --- | 127 | 89 | --- |
| TOTAL | 1951 | 3079 | 2229 | 2038 | 1967 | 2013 | 6555 | 14287 | 20140 | 6001 | 3215 | 2252 |
| MEAN | 62.9 | 103 | 71.9 | 65.7 | 67.8 | 64.9 | 219 | 461 | 671 | 194 | 104 | 75.1 |
| MAX | 115 | 132 | 88 | 74 | 86 | 78 | 530 | 725 | 1040 | 341 | 130 | 119 |
| MIN | 25 | 74 | 60 | 58 | 54 | 54 | 72 | 283 | 328 | 127 | 83 | 52 |
| AC-FT | 3870 | 6110 | 4420 | 4040 | 3900 | 3990 | 13000 | 28340 | 39950 | 11900 | 6380 | 4470 |

CAL YR 1979 TOTAL 69217 MEAN 190 MAX 1070 MIN 16 AC-FT 137300
WTR YR 1980 TOTAL 65727 MEAN 180 MAX 1040 MIN 25 AC-FT 130400

NOTE.--NO GAGE-HEIGHT RECORD NOV. 14 TO APR. 23.

## 09124500 LAKE FORK AT GATEVIEW, CO

LOCATION.--Lat 38°17'56", long 107°13'46", in SE¼NE¼ sec.29, T.47 N., R.3 W., Gunnison County, Hydrologic Unit 14020002, on left bank at old village of Gateview, 25 ft (8 m) downstream from private bridge, 0.2 mi (0.3 km) upstream from Indian Creek, and 6.3 mi (10.1 km) upstream from waterline of Blue Mesa Reservoir at elevation 7,519 ft (2,291.8 m).

DRAINAGE AREA.--334 mi$^2$ (865 km$^2$).

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,827.66 ft (2,385.871 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1938, at datum 2.00 ft (0.610 m) higher, and Oct. 1, 1938, to Sept. 30, 1945, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Diversions for irrigation of about 1,600 acres (6.48 km$^2$) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--43 years, 234 ft$^3$/s (6.627 m$^3$/s) 169,500 acre-ft/yr (209 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft$^3$/s (76.5 m$^3$/s) June 29, 1957, gage height, 4.30 ft (1.311 m); minimum daily, 22 ft$^3$/s (0.62 m$^3$/s) Jan. 21, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,030 ft$^3$/s (57.5 m$^3$/s) at 0830 June 11, gage height, 3.36 ft (1.024 m), from peak stage indicator, only peak above base of 1,400 ft$^3$/s (40 m$^3$/s); minimum daily, 38.0 ft$^3$/s (1.08 m$^3$/s) Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 67 | 52 | 43 | 45 | 46 | 48 | 47 | 306 | 772 | 944 | 192 | 112 |
| 2 | 64 | 55 | 43 | 46 | 46 | 46 | 48 | 276 | 772 | 864 | 192 | 106 |
| 3 | 65 | 58 | 46 | 45 | 48 | 46 | 50 | 257 | 808 | 800 | 191 | 102 |
| 4 | 62 | 64 | 49 | 46 | 54 | 46 | 52 | 260 | 932 | 751 | 184 | 97 |
| 5 | 61 | 62 | 49 | 46 | 50 | 45 | 54 | 287 | 1040 | 670 | 175 | 94 |
| 6 | 60 | 58 | 49 | 45 | 47 | 46 | 54 | 300 | 1090 | 555 | 170 | 92 |
| 7 | 60 | 61 | 50 | 45 | 46 | 46 | 52 | 351 | 955 | 585 | 165 | 102 |
| 8 | 61 | 61 | 52 | 45 | 46 | 45 | 50 | 420 | 917 | 590 | 159 | 101 |
| 9 | 59 | 61 | 52 | 45 | 41 | 45 | 52 | 460 | 1270 | 580 | 162 | 115 |
| 10 | 59 | 61 | 50 | 45 | 41 | 44 | 54 | 427 | 1610 | 574 | 156 | 149 |
| 11 | 59 | 56 | 49 | 45 | 41 | 44 | 54 | 426 | 1770 | 541 | 148 | 187 |
| 12 | 59 | 55 | 48 | 45 | 38 | 42 | 52 | 393 | 1590 | 560 | 136 | 189 |
| 13 | 59 | 50 | 47 | 50 | 40 | 41 | 52 | 333 | 1550 | 551 | 130 | 164 |
| 14 | 59 | 49 | 46 | 50 | 42 | 42 | 54 | 308 | 1460 | 510 | 130 | 145 |
| 15 | 62 | 47 | 46 | 52 | 42 | 44 | 60 | 309 | 1310 | 464 | 144 | 134 |
| 16 | 59 | 47 | 46 | 50 | 52 | 46 | 74 | 293 | 1230 | 426 | 134 | 126 |
| 17 | 58 | 50 | 45 | 50 | 50 | 45 | 86 | 288 | 1220 | 404 | 127 | 118 |
| 18 | 63 | 52 | 45 | 50 | 62 | 47 | 110 | 274 | 1290 | 389 | 121 | 111 |
| 19 | 63 | 50 | 45 | 50 | 61 | 49 | 130 | 280 | 1330 | 362 | 114 | 104 |
| 20 | 62 | 49 | 46 | 47 | 56 | 49 | 180 | 359 | 1280 | 349 | 107 | 98 |
| 21 | 68 | 49 | 46 | 46 | 54 | 49 | 180 | 525 | 1220 | 322 | 102 | 95 |
| 22 | 62 | 49 | 46 | 46 | 52 | 50 | 200 | 707 | 1150 | 304 | 99 | 91 |
| 23 | 64 | 45 | 45 | 45 | 52 | 52 | 240 | 907 | 1170 | 289 | 118 | 88 |
| 24 | 66 | 48 | 45 | 46 | 52 | 52 | 220 | 892 | 1190 | 276 | 172 | 87 |
| 25 | 64 | 50 | 46 | 46 | 48 | 52 | 194 | 670 | 1160 | 270 | 204 | 86 |
| 26 | 64 | 54 | 46 | 47 | 48 | 49 | 174 | 605 | 1170 | 255 | 194 | 84 |
| 27 | 62 | 52 | 50 | 47 | 49 | 49 | 173 | 584 | 1180 | 246 | 169 | 82 |
| 28 | 60 | 52 | 42 | 48 | 49 | 49 | 187 | 620 | 1090 | 232 | 150 | 82 |
| 29 | 62 | 50 | 40 | 48 | 49 | 48 | 241 | 669 | 968 | 213 | 134 | 79 |
| 30 | 65 | 46 | 45 | 47 | --- | 48 | 296 | 681 | 920 | 210 | 123 | 76 |
| 31 | 56 | --- | 45 | 46 | --- | 50 | --- | 718 | --- | 200 | 117 | --- |
| TOTAL | 1914 | 1593 | 1442 | 1454 | 1402 | 1454 | 3470 | 14185 | 35414 | 14285 | 4619 | 3296 |
| MEAN | 61.7 | 53.1 | 46.5 | 46.9 | 48.3 | 46.9 | 116 | 458 | 1180 | 461 | 149 | 110 |
| MAX | 68 | 64 | 52 | 52 | 62 | 52 | 296 | 907 | 1770 | 944 | 204 | 189 |
| MIN | 56 | 45 | 40 | 45 | 38 | 41 | 47 | 257 | 772 | 200 | 99 | 76 |
| AC-FT | 3800 | 3160 | 2860 | 2880 | 2780 | 2880 | 6880 | 28140 | 70240 | 28330 | 9160 | 6540 |

CAL YR 1979 TOTAL 94813 MEAN 260 MAX 1610 MIN 40 AC-FT 188100
WTR YR 1980 TOTAL 84528 MEAN 231 MAX 1770 MIN 38 AC-FT 167700

NOTE.--NO GAGE-HEIGHT RECORD NOV. 29 TO APR. 24.

## 09124600 BLUE MESA RESERVOIR NEAR SAPINERO, CO

LOCATION.--Lat 38°27'13", long 107°20'00", in NW¼ sec.4, T.48 N., R.4 W., Gunnison County, Hydrologic Unit 14020002, in intake tower of Blue Mesa Dam, 0.5 mi (0.8 km) upstream from Pine Creek and 1.7 mi (2.7 km) west of Sapinero.

DRAINAGE AREA.--3,426 mi² (8,873 km²).

PERIOD OF RECORD.--October 1965 to September 1980 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by earth and rockfill dam. Storage began Oct. 26, 1965. Usable capacity, 829,600 acre-ft (1,020 hm³) between elevations 7,358.00 ft (2,242.718 m), sill of outlet gate, and 7,519.40 ft (2,291.913 m), top of radial spillway gates. Dead storage, 111,200 acre-ft (137 hm³). Reservoir is used for power development and to provide storage replacement to meet downstream requirements under the Colorado River Compact of 1922. Figures given are usable contents. Figures published prior to October 1969 were total contents.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 831,700 acre-ft (1,030 hm³) July 8, 1970, elevation, 7,519.64 ft (2,291.986 m); minimum since appreciable storage was attained, 187,800 acre-ft (232 hm³) Oct. 10-17, 1966, elevation, 7,424.35 ft (2,262.942 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 824,300 acre-ft (1,020 hm³) July 20, elevation, 7,518.83 ft (2,291.739 m); minimum, 334,000 acre-ft (412 hm³) Apr. 17, elevation, 7,453.85 ft (2,271.933 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Date | Elevation | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,505.89 | 710,300 | - |
| Oct. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,500.53 | 665,500 | -44,800 |
| Nov. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,498.73 | 650,700 | -14,800 |
| Dec. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,489.83 | 579,800 | -70,900 |
| CAL YR 1979 . . . . . . . . . . . . . . . . . . . . . . . . |  |  | -14,500 |
| Jan. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,480.63 | 510,300 | -69,500 |
| Feb. 29. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,471.48 | 445,400 | -64,800 |
| Mar. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,459.45 | 367,500 | -78,000 |
| Apr. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,456.92 | 352,100 | -15,400 |
| May 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,478.65 | 495,900 | +143,800 |
| June 30. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,514.14 | 782,000 | +286,100 |
| July 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,517.81 | 815,000 | +33,000 |
| Aug. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,512.80 | 770,100 | -44,900 |
| Sept. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,509.09 | 737,700 | -32,400 |
| WTR YR 1980 . . . . . . . . . . . . . . . . . . . . . . . . |  |  | +27,400 |

## 09125400 MORROW POINT RESERVOIR NEAR CIMARRON, CO

LOCATION.--Lat 38°27'05", long 107°32'12", in NW¼ sec.4, T.48 N., R.6 W., Montrose County, Hydrologic Unit 14020002, in recorder house at Morrow Point Dam on Gunnison River, 2,000 ft (610 m) upstream from Cimarron River and 1.2 mi (1.9 km) northeast of Cimarron.

DRAINAGE AREA.--3,637 mi$^2$ (9,420 km$^2$).

PERIOD OF RECORD.--January 1968 to September 1980 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Water and Power Resources Service bench mark); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by double-curvature thin concrete-arch dam. Storage began Jan. 24, 1968. Capacity, 121,200 acre-ft (149 hm$^3$) at elevation 7,165.00 ft (2,183.892 m), crest of dam. Dead storage, 165 acre-ft (203,000 hm$^3$) below elevation 6,808.00 ft (2,075.078 m), invert of steel liner in outlet works. Reservoir is used for power development. Figures given are usable contents.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 118,900 acre-ft (147 hm$^3$) May 19, 1970, elevation, 7,162.27 ft (2,183.060 m); minimum since appreciable storage was attained, 24,530 acre-ft (30.2 hm$^3$) Nov. 6, 1969, elevation, 6,988.10 ft (2,129.973 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 116,200 acre-ft (143 hm$^3$) July 11, elevation, 7,159.05 ft (2,182.078 m); minimum, 107,400 acre-ft (132 hm$^3$) Jan. 15, elevation, 7,147.93 ft (2,178.689 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Date | Elevation | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,158.19 | 115,500 | - |
| Oct. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,158.42 | 115,700 | +200 |
| Nov. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,154.86 | 112,900 | -2,800 |
| Dec. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,153.50 | 111,800 | -1,100 |
| CAL YR 1979 . . . . . . . . . . . . . . . . . . . . . . . . . |  | - | -1,100 |
| Jan. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,157.58 | 115,100 | +3,300 |
| Feb. 29. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,156.72 | 114,400 | -700 |
| Mar. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,156.98 | 114,600 | +200 |
| Apr. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,158.22 | 115,600 | +1,000 |
| May 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,153.68 | 111,900 | -3,700 |
| June 30. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,156.07 | 113,800 | +1,900 |
| July 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,155.61 | 113,500 | -300 |
| Aug. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,158.60 | 115,900 | +2,400 |
| Sept. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,154.29 | 112,400 | -3,500 |
| WTR YR 1980 . . . . . . . . . . . . . . . . . . . . . . . . . |  |  | -3,100 |

## 09126000 CIMARRON RIVER NEAR CIMARRON, CO

LOCATION.--Lat 38°15'36", long 107°32'43", in NW¼NE¼ sec.8, T.46 N., R.6 W., Gunnison County, Hydrologic Unit 14020002, on right bank 100 ft (30 m) upstream from Forest Service bridge, 0.6 mi (1.0 km) upstream from headgate on Cimarron ditch, 2.1 mi (3.4 km) downstream from Silver Jack Dam, and 13 mi (21 km) south of Cimarron.

DRAINAGE AREA.--66.6 mi² (172.5 km²).

PERIOD OF RECORD.--October 1954 to current year. Prior to October 1965, published as Cimarron Creek near Cimarron.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,631.48 ft (2,630.875 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 12, 1972, at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Diversion above station through Owl Creek ditch into Uncompahgre River basin. Flow regulated by Silver Jack Dam, total capacity, 13,520 acre-ft (16.7 hm³), 2.1 mi (3.4 km) upstream since Dec. 23, 1970. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years (water years 1955-70), 88.6 ft³/s (2.509 m³/s), 64,190 acre-ft/yr (79.1 hm³/yr), prior to completion of Silver Jack Dam; 10 years (water years 1971-80), 88.7 ft³/s (2.512 m³/s), 64,260 acre-ft/yr (79.2 hm³/yr), subsequent to completion of Silver Jack Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft³/s (50.7 m³/s) June 28, 1957, gage height, 8.32 ft (2.536 m), site and datum then in use; no flow Dec. 24, 1970, to Jan. 9, 1971 (result of storage in Silver Jack Dam); minimum daily prior to construction of Silver Jack Dam, 8.0 ft³/s (0.23 m³/s) Dec. 27, 28, 1962, Jan. 13, 1963; minimum daily, 4.4 ft³/s (0.12 m³/s) Apr. 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 716 ft³/s (20.3 m³/s) at 0500 June 11, gage height, 5.04 ft (1.536 m); minimum daily, 8.0 ft³/s (0.23 m³/s) Jan. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 65 | 42 | 15 | 12 | 10 | 16 | 14 | 25 | 234 | 323 | 102 | 91 |
| 2 | 109 | 42 | 15 | 13 | 12 | 15 | 14 | 24 | 296 | 303 | 102 | 91 |
| 3 | 112 | 42 | 16 | 12 | 13 | 15 | 14 | 29 | 358 | 268 | 102 | 89 |
| 4 | 115 | 42 | 16 | 14 | 14 | 16 | 14 | 32 | 359 | 234 | 111 | 89 |
| 5 | 113 | 41 | 16 | 16 | 13 | 15 | 15 | 33 | 268 | 234 | 119 | 89 |
| 6 | 113 | 42 | 16 | 13 | 12 | 15 | 15 | 35 | 192 | 234 | 119 | 89 |
| 7 | 113 | 42 | 16 | 14 | 13 | 15 | 14 | 38 | 195 | 210 | 119 | 88 |
| 8 | 107 | 41 | 15 | 14 | 12 | 15 | 13 | 45 | 203 | 183 | 119 | 90 |
| 9 | 104 | 41 | 15 | 13 | 12 | 14 | 13 | 45 | 504 | 182 | 119 | 91 |
| 10 | 104 | 41 | 15 | 13 | 11 | 13 | 14 | 43 | 596 | 172 | 119 | 91 |
| 11 | 103 | 40 | 15 | 12 | 12 | 13 | 15 | 49 | 652 | 165 | 111 | 90 |
| 12 | 102 | 36 | 15 | 14 | 13 | 13 | 14 | 40 | 626 | 165 | 104 | 89 |
| 13 | 100 | 26 | 15 | 13 | 14 | 13 | 13 | 32 | 621 | 165 | 104 | 89 |
| 14 | 100 | 21 | 14 | 13 | 14 | 13 | 13 | 29 | 584 | 141 | 104 | 88 |
| 15 | 85 | 20 | 14 | 14 | 13 | 14 | 13 | 28 | 531 | 122 | 105 | 86 |
| 16 | 68 | 19 | 14 | 14 | 15 | 14 | 14 | 29 | 499 | 121 | 103 | 86 |
| 17 | 68 | 18 | 14 | 13 | 17 | 14 | 15 | 32 | 488 | 119 | 102 | 85 |
| 18 | 68 | 17 | 14 | 13 | 18 | 14 | 16 | 30 | 501 | 119 | 99 | 84 |
| 19 | 67 | 17 | 14 | 13 | 19 | 15 | 19 | 35 | 472 | 119 | 96 | 83 |
| 20 | 68 | 17 | 15 | 12 | 18 | 15 | 26 | 40 | 436 | 119 | 96 | 82 |
| 21 | 68 | 18 | 15 | 10 | 17 | 14 | 25 | 43 | 414 | 125 | 95 | 82 |
| 22 | 61 | 17 | 13 | 8.0 | 17 | 14 | 27 | 47 | 404 | 131 | 95 | 37 |
| 23 | 55 | 17 | 13 | 8.0 | 16 | 14 | 30 | 47 | 393 | 130 | 94 | 12 |
| 24 | 54 | 17 | 14 | 10 | 16 | 15 | 26 | 42 | 421 | 128 | 94 | 12 |
| 25 | 54 | 17 | 15 | 11 | 15 | 15 | 22 | 39 | 430 | 128 | 95 | 12 |
| 26 | 54 | 17 | 13 | 12 | 15 | 14 | 22 | 109 | 438 | 128 | 94 | 12 |
| 27 | 54 | 17 | 13 | 13 | 15 | 14 | 21 | 108 | 413 | 128 | 93 | 12 |
| 28 | 53 | 17 | 14 | 13 | 16 | 14 | 23 | 107 | 378 | 118 | 93 | 12 |
| 29 | 48 | 16 | 12 | 13 | 16 | 14 | 27 | 178 | 332 | 106 | 92 | 12 |
| 30 | 43 | 16 | 11 | 11 | --- | 14 | 27 | 235 | 309 | 96 | 89 | 12 |
| 31 | 42 | --- | 11 | 9.0 | --- | 15 | --- | 238 | --- | 102 | 89 | --- |
| TOTAL | 2470 | 816 | 443 | 383.0 | 418 | 444 | 548 | 1886 | 12547 | 5018 | 3178 | 1975 |
| MEAN | 79.7 | 27.2 | 14.3 | 12.4 | 14.4 | 14.3 | 18.3 | 60.8 | 418 | 162 | 103 | 65.8 |
| MAX | 115 | 42 | 16 | 16 | 19 | 16 | 30 | 238 | 652 | 323 | 119 | 91 |
| MIN | 42 | 16 | 11 | 8.0 | 10 | 13 | 13 | 24 | 192 | 96 | 89 | 12 |
| AC-FT | 4900 | 1620 | 879 | 760 | 829 | 881 | 1090 | 3740 | 24890 | 9950 | 6300 | 3920 |

CAL YR 1979 TOTAL 38092.0 MEAN 104 MAX 790 MIN 11 AC-FT 75560
WTR YR 1980 TOTAL 30126.0 MEAN 82.3 MAX 652 MIN 8.0 AC-FT 59750

NOTE.--NO GAGE-HEIGHT RECORD FEB. 6 TO APR. 24.

## 09127600 CRYSTAL RESERVOIR NEAR CIMARRON, CO

LOCATION.--Lat 38°30'38", long 107°37'25", in NW¼ sec.14, T.49 N., R.7 W., Montrose County, Hydrologic Unit 14020002, located in powerplant at base of Crystal Dam on the Gunnison River 20 mi (32 km) east of Montrose, 1.5 mi (2.4 km) upstream from the east portal of the Gunnison Tunnel.

DRAINAGE AREA.--3,960 mi² (10,256 km²).

PERIOD OF RECORD.--October 1978 to September 1980 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service), gage readings have been reduced to NGVD.

REMARKS.--Reservoir is formed by double-curvature thin concrete-arch dam. Storage began March 14, 1977. Capacity, 25,200 acre-ft (31.1 hm³) at elevation 6,755.00 ft (2,059 m) crest of dam. Dead storage 8,300 acre-ft (10.2 hm³). Reservoir is used for power development. Figures given represent usable contents.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 17,640 acre-ft (21.8 hm³) Aug. 29, elevation, 6,755.16 ft (2,058.973 m); minimum, 12,960 acre-ft (16.0 hm³) Sept. 24, elevation, 6,738.46 ft (2,053.883 m).

### MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Date | Elevation | Contents (acre-feet) | Change in contents (acre-feet) |
|---|---|---|---|
| Sept. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,752.34 | 16,810 | - |
| Oct. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,751.63 | 16,600 | -210 |
| Nov. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,753.65 | 17,190 | +590 |
| Dec. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,753.90 | 17,270 | +80 |
| CAL YR 1979 . . . . . . . . . . . . . . . . . . . . . . . . . . |  | - | +1,170 |
| Jan. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,753.96 | 17,280 | +10 |
| Feb. 29. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,751.45 | 16,550 | -730 |
| Mar. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,751.97 | 16,700 | +150 |
| Apr. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,750.67 | 16,320 | -380 |
| May 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,753.78 | 17,230 | +910 |
| June 30. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,749.55 | 16,000 | -1,230 |
| July 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,753.22 | 17,070 | +1,070 |
| Aug. 31. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,755.15 | 17,640 | +570 |
| Sept. 30. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,738.63 | 13,010 | -4,630 |
| WTR YR 1980 . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  | -3,800 |

## 09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO

LOCATION.--Lat 38°31'45", long 107°38'54", in NE¼NW¼ sec.10, T.49 N., R.7 W., Montrose County, Hydrologic Unit 14020002, on left bank 0.4 mi (0.6 km) downstream from east portal of Gunnison tunnel, 4.7 mi (7.6 km) downstream from Crystal Creek, and 12 mi (19 km) northeast of Montrose.

DRAINAGE AREA.--3,965 mi² (10,269 km²).

PERIOD OF RECORD.--October 1903 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at east portal of Gunnison tunnel" 1905-6 and as "at River portal" 1907-11.

REVISED RECORDS.--WSP 1313: 1906(M). WSP 1733: 1918-19, 1948. WSP 2124: Drainage area. WDR CO-77-2: 1926, 1941.

GAGE.--Water-stage recorder. Datum of gage is 6,526.06 ft (1,989.143 m) National Geodetic Vertical Datum of 1929. Apr. 9, 1905, to Aug. 20, 1915, nonrecording gage at site 300 ft (91 m) upstream from diversion dam at east portal of Gunnison tunnel at different datum. Aug. 21, 1915, to Jan. 19, 1943, nonrecording gage at site 500 ft (150 m) downstream from diversion dam at east portal of Gunnison tunnel at different datum. Jan. 20, 1943, to Sept. 30, 1955, water-stage recorder at present site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, transbasin diversion through Gunnison tunnel for irrigation of about 75,000 acres (304 km²) in Uncompahgre Valley (see table below for figures of diversion), Taylor Park Reservoir (station 09108500), Blue Mesa Reservoir (station 09124600), Morrow Point Reservoir (station 09125400), Crystal Reservoir (station 09127600), diversions for irrigation of about 63,000 acres (255 km²), and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions, in acre-feet, through Gunnison tunnel; furnished by Uncompahgre Valley Water Users Association.

AVERAGE DISCHARGE.--77 years, 1,371 ft³/s (38.80 m³/s), 993,300 acre-ft/yr (1,220 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 19,000 ft³/s (538 m³/s) June 15, 1921, gage height, about 15.8 ft (4.81 m), present datum, from rating curve extended above 14,000 ft³/s (396 m³/s); no flow Sept. 25, 26, 1936, Oct. 8, 1949, Sept. 5, 6, 15, 16, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,750 ft³/s (77.9 m³/s) at 1300 May 23, gage height, 5.54 ft (1.689 m); maximum gage height, 5.55 ft (1.692 m) June 18; minimum daily discharge, 320 ft³/s (9.06 m³/s) Nov. 4-5.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1200 | 760 | 1340 | 1740 | 1740 | 1800 | 1760 | 1620 | 1500 | 2020 | 732 | 790 |
| 2 | 1210 | 802 | 1840 | 1760 | 1770 | 1800 | 1690 | 1630 | 1510 | 2020 | 744 | 657 |
| 3 | 1200 | 324 | 1880 | 1740 | 1790 | 1800 | 1620 | 1630 | 1490 | 2020 | 727 | 564 |
| 4 | 690 | 320 | 1880 | 1740 | 1780 | 1800 | 1630 | 1640 | 1440 | 2030 | 801 | 564 |
| 5 | 1280 | 320 | 1880 | 1740 | 1780 | 1800 | 1650 | 1660 | 1430 | 2030 | 1030 | 553 |
| 6 | 1270 | 320 | 1880 | 1740 | 1780 | 1920 | 1670 | 1660 | 1430 | 2000 | 1100 | 528 |
| 7 | 1230 | 604 | 1820 | 1740 | 1780 | 2050 | 1680 | 1660 | 1420 | 1770 | 1000 | 528 |
| 8 | 1200 | 1250 | 1820 | 1740 | 1770 | 2050 | 1610 | 1740 | 1420 | 1480 | 877 | 528 |
| 9 | 1200 | 1260 | 1830 | 1740 | 1770 | 2050 | 1500 | 1820 | 1410 | 1280 | 847 | 528 |
| 10 | 826 | 1290 | 1830 | 1750 | 1770 | 2050 | 1410 | 1800 | 1600 | 946 | 801 | 556 |
| 11 | 612 | 1580 | 1800 | 1750 | 1770 | 2040 | 1100 | 1920 | 2210 | 835 | 665 | 600 |
| 12 | 803 | 1610 | 1740 | 1760 | 1770 | 2000 | 1460 | 2180 | 2570 | 683 | 762 | 670 |
| 13 | 1210 | 934 | 1740 | 1750 | 1770 | 2000 | 1480 | 2500 | 2580 | 692 | 752 | 900 |
| 14 | 1240 | 516 | 1740 | 1750 | 1770 | 2030 | 1660 | 2490 | 2590 | 675 | 737 | 910 |
| 15 | 1330 | 600 | 1740 | 1740 | 1770 | 2030 | 1810 | 2480 | 2540 | 675 | 720 | 1030 |
| 16 | 812 | 600 | 1740 | 1310 | 1770 | 2030 | 1720 | 2490 | 2510 | 681 | 728 | 1140 |
| 17 | 439 | 600 | 1720 | 1020 | 1770 | 2020 | 1640 | 2480 | 2500 | 685 | 737 | 1070 |
| 18 | 436 | 600 | 1750 | 1490 | 1780 | 2020 | 1650 | 2480 | 2520 | 682 | 738 | 857 |
| 19 | 433 | 600 | 1750 | 1750 | 1770 | 2020 | 1660 | 2480 | 2270 | 683 | 723 | 814 |
| 20 | 432 | 600 | 1750 | 1760 | 1770 | 2020 | 1650 | 2480 | 2020 | 724 | 724 | 814 |
| 21 | 432 | 600 | 1750 | 1760 | 1770 | 2020 | 1700 | 2590 | 1950 | 743 | 724 | 814 |
| 22 | 550 | 600 | 1750 | 1730 | 1770 | 2040 | 1730 | 2690 | 1900 | 713 | 652 | 844 |
| 23 | 469 | 600 | 1740 | 1670 | 1770 | 2040 | 1720 | 2740 | 1730 | 695 | 722 | 883 |
| 24 | 378 | 610 | 1740 | 1720 | 1770 | 1740 | 1700 | 2740 | 1520 | 698 | 710 | 887 |
| 25 | 408 | 610 | 1750 | 1780 | 1790 | 2010 | 1680 | 2740 | 1520 | 707 | 924 | 885 |
| 26 | 408 | 604 | 1750 | 1750 | 1800 | 1720 | 1650 | 2550 | 1550 | 721 | 1140 | 868 |
| 27 | 408 | 612 | 1760 | 1770 | 1800 | 1650 | 1630 | 2220 | 1550 | 734 | 1050 | 805 |
| 28 | 408 | 922 | 1720 | 1780 | 1800 | 1590 | 1580 | 1910 | 1550 | 732 | 883 | 771 |
| 29 | 424 | 1420 | 1750 | 1760 | 1790 | 1930 | 1510 | 1750 | 1530 | 735 | 848 | 846 |
| 30 | 456 | 1420 | 1750 | 1750 | --- | 1940 | 1620 | 1550 | 1800 | 724 | 790 | 886 |
| 31 | 456 | --- | 1750 | 1740 | --- | 1840 | --- | 1510 | --- | 721 | 790 | --- |
| TOTAL | 23850 | 23488 | 54680 | 52720 | 51490 | 59850 | 48570 | 65830 | 55560 | 32534 | 25178 | 23090 |
| MEAN | 769 | 783 | 1764 | 1701 | 1776 | 1931 | 1619 | 2124 | 1852 | 1049 | 812 | 770 |
| MAX | 1330 | 1610 | 1880 | 1780 | 1800 | 2050 | 1810 | 2740 | 2590 | 2030 | 1140 | 1140 |
| MIN | 378 | 320 | 1340 | 1020 | 1740 | 1590 | 1100 | 1510 | 1410 | 675 | 652 | 528 |
| AC-FT | 47310 | 46590 | 108500 | 104600 | 102100 | 118700 | 96340 | 130600 | 110200 | 64530 | 49940 | 45800 |
| a | 37310 | 6770 | 0 | 0 | 0 | 2070 | 41120 | 53880 | 55540 | 63570 | 64250 | 51680 |

CAL YR 1979 TOTAL 567990 MEAN 1556 MAX 2600 MIN 320 AC-FT 1127000
WTR YR 1980 TOTAL 516840 MEAN 1412 MAX 2740 MIN 320 AC-FT 1025000

a DIVERSIONS IN ACRE-FEET, THROUGH GUNNISON TUNNEL, FURNISHED BY UNCOMPAHGRE VALLEY WATER USERS ASSOCIATION.

## 09128500 SMITH FORK NEAR CRAWFORD, CO

LOCATION.--Lat 38°43'40", long 107°30'22", in SW¼SE¼ sec.24, T.15 S., R.91 W., Delta County, Hydrologic Unit 14020002, on left bank 20 ft (6 m) upstream from Forest Service bridge, 0.4 mi (0.6 km) upstream from Second Creek, 6 mi (10 km) northeast of Crawford, and 6.5 mi (10.5 km) upstream from Iron Creek.

DRAINAGE AREA.--43.7 mi$^2$ (113.2 km$^2$).

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1941. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,091 ft (2,161 m), from topographic map. Prior to Nov. 16, 1938, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period and periods of no gage-height record, which are poor. Diversions for irrigation of a few small hay meadows above station. Saddle Mountain ditch diverts water above station for irrigation of about 800 acres (3.24 km$^2$) below. One small ditch diverts water from Virginia Creek to Iron Creek drainage. Head and Ferrier ditch imports water from Curecanti Creek drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--45 years, 41.0 ft$^3$/s (1.161 m$^3$/s), 29,700 acre-ft/yr (36.6 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft$^3$/s (33.4 m$^3$/s) May 28, 1979, gage height, 6.90 ft (2.103 m); minimum daily discharge determined, 1.8 ft$^3$/s (0.051 m$^3$/s) July 30, 31, Aug. 1, 1963, Sept. 5, 6, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 260 ft$^3$/s (7.4 m$^3$/s) and maximum (*):

| Date | Time | Discharge (ft$^3$/s) | Discharge (m$^3$/s) | Gage height (ft) | Gage height (m) | Date | Time | Discharge (ft$^3$/s) | Discharge (m$^3$/s) | Gage height (ft) | Gage height (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| May 8 | 0200 | 430 | 12.2 | 6.23 | 1.899 | June 6 | 0800 | 481 | 13.6 | 6.25 | 1.905 |
| May 23 | 2100 | *643 | 18.1 | 6.50 | 1.981 | | | | | | |

Minimum daily discharge 2.7 ft$^3$/s (0.076 m$^3$/s) Sept. 26.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.6 | 4.5 | 4.5 | 4.5 | 4.7 | 8.4 | 8.7 | 238 | 327 | 63 | 14 | 6.2 |
| 2 | 5.5 | 5.2 | 5.0 | 5.0 | 4.9 | 8.0 | 8.8 | 210 | 250 | 59 | 15 | 5.4 |
| 3 | 5.5 | 5.0 | 5.6 | 5.8 | 5.0 | 7.6 | 8.4 | 218 | 242 | 51 | 13 | 5.2 |
| 4 | 4.8 | 5.2 | 6.2 | 5.8 | 5.2 | 8.0 | 8.2 | 270 | 319 | 44 | 13 | 4.3 |
| 5 | 5.1 | 5.4 | 6.4 | 5.6 | 5.4 | 8.0 | 8.9 | 290 | 431 | 39 | 14 | 3.8 |
| 6 | 5.1 | 5.0 | 6.8 | 5.8 | 5.4 | 8.2 | 9.1 | 286 | 458 | 34 | 14 | 3.7 |
| 7 | 5.1 | 5.6 | 6.8 | 5.6 | 5.0 | 8.2 | 8.8 | 310 | 338 | 34 | 13 | 3.7 |
| 8 | 5.0 | 5.2 | 6.6 | 5.4 | 4.5 | 7.8 | 8.8 | 364 | 244 | 34 | 13 | 3.7 |
| 9 | 4.9 | 5.8 | 6.2 | 5.6 | 4.0 | 7.6 | 9.8 | 320 | 282 | 34 | 12 | 4.1 |
| 10 | 5.0 | 5.8 | 6.2 | 5.5 | 5.0 | 8.0 | 13 | 226 | 336 | 34 | 9.9 | 5.6 |
| 11 | 5.1 | 5.6 | 5.8 | 4.7 | 6.0 | 8.2 | 15 | 193 | 347 | 30 | 8.8 | 8.5 |
| 12 | 5.1 | 5.4 | 6.2 | 5.4 | 6.4 | 7.6 | 13 | 193 | 315 | 30 | 7.4 | 6.0 |
| 13 | 5.1 | 5.2 | 5.4 | 6.0 | 7.2 | 7.4 | 13 | 175 | 275 | 32 | 6.9 | 4.7 |
| 14 | 5.1 | 5.2 | 4.8 | 6.4 | 7.2 | 8.0 | 17 | 133 | 195 | 30 | 6.4 | 3.5 |
| 15 | 4.9 | 4.9 | 4.5 | 6.4 | 8.0 | 8.4 | 23 | 118 | 165 | 26 | 9.6 | 3.2 |
| 16 | 4.9 | 4.9 | 5.2 | 6.0 | 7.6 | 8.0 | 32 | 124 | 139 | 23 | 9.1 | 3.5 |
| 17 | 4.9 | 4.9 | 5.4 | 5.6 | 7.2 | 7.0 | 38 | 172 | 124 | 20 | 7.8 | 3.7 |
| 18 | 5.9 | 5.2 | 5.4 | 5.6 | 7.8 | 8.0 | 63 | 151 | 117 | 19 | 6.2 | 4.1 |
| 19 | 5.5 | 5.4 | 5.2 | 5.4 | 7.8 | 8.6 | 98 | 160 | 121 | 22 | 6.2 | 4.1 |
| 20 | 5.5 | 5.4 | 4.8 | 5.4 | 7.2 | 9.0 | 132 | 222 | 111 | 25 | 7.9 | 4.3 |
| 21 | 7.5 | 5.2 | 5.2 | 5.2 | 7.4 | 9.6 | 178 | 295 | 100 | 23 | 10 | 8.8 |
| 22 | 5.8 | 5.0 | 5.6 | 5.1 | 7.6 | 10 | 218 | 523 | 92 | 21 | 9.6 | 9.6 |
| 23 | 5.9 | 4.8 | 6.0 | 4.8 | 7.2 | 9.6 | 230 | 562 | 89 | 21 | 9.9 | 9.3 |
| 24 | 6.0 | 4.5 | 5.8 | 4.9 | 7.0 | 9.2 | 182 | 497 | 80 | 20 | 11 | 9.1 |
| 25 | 5.8 | 5.2 | 5.6 | 5.0 | 6.8 | 9.8 | 136 | 343 | 77 | 19 | 12 | 5.8 |
| 26 | 5.8 | 5.4 | 5.4 | 5.0 | 7.2 | 9.2 | 139 | 270 | 79 | 18 | 11 | 2.7 |
| 27 | 5.6 | 5.6 | 6.0 | 5.0 | 8.0 | 8.9 | 199 | 266 | 82 | 16 | 8.8 | 5.1 |
| 28 | 5.6 | 5.2 | 5.6 | 5.0 | 8.2 | 8.5 | 172 | 314 | 71 | 15 | 11 | 5.6 |
| 29 | 5.6 | 4.5 | 5.8 | 4.9 | 8.4 | 9.2 | 182 | 346 | 60 | 15 | 11 | 5.8 |
| 30 | 5.4 | 4.0 | 4.8 | 4.8 | --- | 8.8 | 242 | 294 | 59 | 14 | 7.4 | 5.8 |
| 31 | 5.2 | --- | 4.2 | 4.4 | --- | 9.3 | --- | 306 | --- | 13 | 6.9 | --- |
| TOTAL | 167.8 | 154.2 | 173.0 | 165.6 | 189.3 | 262.1 | 2414.5 | 8389 | 5925 | 878 | 315.8 | 158.9 |
| MEAN | 5.41 | 5.14 | 5.58 | 5.34 | 6.53 | 8.45 | 80.5 | 271 | 198 | 28.3 | 10.2 | 5.30 |
| MAX | 7.5 | 5.8 | 6.8 | 6.4 | 8.4 | 10 | 242 | 562 | 458 | 63 | 15 | 9.6 |
| MIN | 4.8 | 4.0 | 4.2 | 4.4 | 4.0 | 7.0 | 8.2 | 118 | 59 | 13 | 6.2 | 2.7 |
| AC-FT | 333 | 306 | 343 | 328 | 375 | 520 | 4790 | 16640 | 11750 | 1740 | 626 | 315 |

CAL YR 1979 TOTAL 21078.2 MEAN 57.7 MAX 1060 MIN 4.0 AC-FT 41810
WTR YR 1980 TOTAL 19193.2 MEAN 52.4 MAX 562 MIN 2.7 AC-FT 38070

NOTE.--NO GAGE-HEIGHT RECORD NOV. 14 TO JAN. 9, FEB. 5 TO MAR. 26.

## 09129600 SMITH FORK NEAR LAZEAR, CO

LOCATION.--Lat 38°42'27", long 107°42'35", in SE¼NE¼ sec.31, T.15 S., R.92 W., Delta County, Hydrologic Unit 14020002, on left bank 25 ft (8 m) downstream from bridge, 1.8 mi (2.9 km) upstream from Diamond Joe Gulch, and 6.4 mi (10.3 km) southeast of Lazear.

DRAINAGE AREA.--166 $mi^2$ (430 $km^2$).

PERIOD OF RECORD.--June 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,830 ft (1,777 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by reservoirs, diversions into basin, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 512 $ft^3/s$ (14.5 $m^3/s$) May 23, 1980, gage height, 5.37 ft (1.637 m); minimum daily, 0.10 $ft^3/s$ (0.003 $m^3/s$) Aug. 12-14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 512 $ft^3/s$ (14.5 $m^3/s$) at 1000 May 23, gage height, 5.37 ft (1.637 m); minimum daily, 1.4 $ft^3/s$ (0.040 $m^3/s$) Sept. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.6 | 3.3 | 3.0 | 3.3 | 3.4 | 4.2 | 4.2 | 167 | 212 | 13 | 4.1 | 1.4 |
| 2 | 2.7 | 3.3 | 3.3 | 3.3 | 4.5 | 4.0 | 4.7 | 130 | 198 | 17 | 4.0 | 1.4 |
| 3 | 2.7 | 3.3 | 3.8 | 3.2 | 4.7 | 4.0 | 4.9 | 118 | 179 | 13 | 3.9 | 1.5 |
| 4 | 2.7 | 3.3 | 4.6 | 3.4 | 4.7 | 4.0 | 5.4 | 138 | 185 | 12 | 3.4 | 1.5 |
| 5 | 2.7 | 3.2 | 4.2 | 3.2 | 4.5 | 4.0 | 5.4 | 145 | 221 | 12 | 2.7 | 1.6 |
| 6 | 2.7 | 2.8 | 4.0 | 3.2 | 4.2 | 4.0 | 5.7 | 155 | 236 | 9.8 | 4.2 | 1.7 |
| 7 | 2.5 | 2.8 | 3.8 | 3.1 | 4.3 | 4.0 | 5.7 | 197 | 203 | 9.8 | 2.6 | 3.3 |
| 8 | 2.1 | 2.9 | 4.0 | 3.1 | 4.1 | 4.0 | 5.4 | 245 | 161 | 9.6 | 2.2 | 4.3 |
| 9 | 2.2 | 2.9 | 4.0 | 3.1 | 3.8 | 4.0 | 5.7 | 254 | 150 | 6.7 | 2.2 | 4.6 |
| 10 | 2.3 | 3.0 | 4.1 | 3.5 | 3.1 | 4.0 | 5.7 | 215 | 155 | 5.4 | 2.5 | 5.5 |
| 11 | 2.2 | 3.1 | 4.0 | 5.4 | 3.7 | 4.0 | 5.7 | 176 | 155 | 6.2 | 2.6 | 6.0 |
| 12 | 2.1 | 3.1 | 3.4 | 4.3 | 4.0 | 4.2 | 5.7 | 212 | 145 | 5.6 | 2.5 | 5.4 |
| 13 | 2.2 | 3.1 | 2.8 | 4.9 | 4.0 | 4.0 | 5.7 | 173 | 133 | 5.3 | 2.6 | 4.8 |
| 14 | 2.2 | 3.1 | 3.0 | 4.8 | 4.5 | 4.0 | 4.7 | 164 | 116 | 5.1 | 3.3 | 4.9 |
| 15 | 2.3 | 3.1 | 3.2 | 5.3 | 4.5 | 4.0 | 3.3 | 153 | 92 | 5.2 | 4.4 | 4.9 |
| 16 | 2.3 | 3.1 | 3.2 | 4.9 | 5.0 | 4.2 | 3.8 | 197 | 78 | 5.0 | 4.5 | 4.3 |
| 17 | 2.3 | 3.1 | 3.1 | 4.7 | 4.8 | 4.9 | 13 | 328 | 66 | 5.7 | 4.4 | 4.2 |
| 18 | 2.4 | 3.3 | 2.9 | 4.7 | 4.6 | 4.0 | 33 | 319 | 60 | 6.3 | 3.8 | 4.2 |
| 19 | 2.4 | 3.8 | 2.8 | 4.5 | 4.9 | 4.0 | 64 | 289 | 56 | 6.9 | 3.3 | 2.3 |
| 20 | 2.7 | 3.8 | 3.1 | 4.2 | 4.9 | 4.0 | 96 | 300 | 51 | 6.9 | 3.8 | 2.3 |
| 21 | 3.5 | 3.8 | 3.4 | 4.1 | 4.6 | 4.0 | 135 | 319 | 42 | 6.7 | 3.7 | 2.3 |
| 22 | 3.2 | 3.8 | 3.5 | 4.4 | 4.7 | 4.0 | 185 | 388 | 37 | 6.4 | 3.6 | 2.3 |
| 23 | 3.1 | 3.4 | 3.4 | 3.9 | 4.7 | 4.4 | 218 | 452 | 37 | 5.7 | 3.9 | 2.2 |
| 24 | 3.1 | 3.6 | 3.1 | 3.3 | 4.4 | 4.2 | 221 | 446 | 30 | 5.8 | 4.4 | 2.2 |
| 25 | 3.2 | 4.0 | 3.4 | 4.5 | 4.4 | 4.2 | 150 | 337 | 24 | 5.6 | 4.2 | 2.2 |
| 26 | 3.1 | 4.0 | 3.3 | 4.9 | 4.2 | 4.2 | 120 | 263 | 18 | 4.9 | 3.4 | 2.3 |
| 27 | 3.1 | 3.6 | 3.3 | 4.6 | 4.2 | 4.0 | 135 | 224 | 14 | 4.3 | 2.8 | 2.5 |
| 28 | 3.0 | 2.9 | 3.2 | 4.5 | 4.2 | 4.0 | 153 | 218 | 10 | 4.8 | 2.7 | 2.3 |
| 29 | 3.1 | 2.5 | 2.5 | 4.6 | 4.2 | 4.2 | 143 | 215 | 29 | 4.9 | 1.8 | 2.2 |
| 30 | 3.1 | 2.7 | 2.5 | 4.6 | --- | 4.2 | 179 | 212 | 23 | 4.7 | 1.6 | 2.1 |
| 31 | 3.2 | --- | 2.7 | 4.4 | --- | 4.2 | --- | 212 | --- | 4.4 | 1.5 | --- |
| TOTAL | 83.0 | 97.7 | 104.6 | 127.9 | 125.8 | 127.1 | 1926.7 | 7361 | 3116 | 224.7 | 100.6 | 92.7 |
| MEAN | 2.68 | 3.26 | 3.37 | 4.13 | 4.34 | 4.10 | 64.2 | 237 | 104 | 7.25 | 3.25 | 3.09 |
| MAX | 3.5 | 4.0 | 4.6 | 5.4 | 5.0 | 4.9 | 221 | 452 | 236 | 17 | 4.5 | 6.0 |
| MIN | 2.1 | 2.5 | 2.5 | 3.1 | 3.1 | 4.0 | 3.3 | 118 | 10 | 4.3 | 1.5 | 1.4 |
| AC-FT | 165 | 194 | 207 | 254 | 250 | 252 | 3820 | 14600 | 6180 | 446 | 200 | 184 |

CAL YR 1979 TOTAL 15700.5 MEAN 43.0 MAX 750 MIN 1.6 AC-FT 31140
WTR YR 1980 TOTAL 13487.8 MEAN 36.9 MAX 452 MIN 1.4 AC-FT 26750

## 09131100 COW CREEK NEAR PAONIA, CO

LOCATION.--Lat 39°06'15", long 107°35'00", Delta County, Hydrologic Unit 14020004, on left bank 150 ft (46 m) downstream from road culvert, 1.8 mi (2.9 km) upstream from Beaver Creek, and 16 mi (26 km) north of Paonia.

DRAINAGE AREA.--12.0 mi² (31.1 km²).

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,060 ft (2,761 m), from topographic map. Prior to Nov. 9, 1974, at site 150 ft (46 m) upstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Flow regulated by Overland Reservoir, capacity, 6,280 acre-ft (7.74 hm³). Diversions by Overland ditch 3.6 mi (5.8 km) above station for use outside drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 7.96 ft³/s (0.225 m³/s), 5,770 acre-ft/yr (7.11 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 172 ft³/s (4.87 m³/s), June 14, 1975, gage height, 3.01 ft (0.917 m); maximum gage height, 6.95 ft (2.118 m), site and datum then in use, Oct. 4, 1974 (backwater from beaver dam); no flow June 20-24, July 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 136 ft³/s (3.85 m³/s) at 0100 July 4, gage height, 2.86 ft (0.872 m); maximum gage height, 3.86 ft (1.176 m) (ice jam); minimum daily discharge, 0.40 ft³/s (0.011 m³/s) Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.3 | 1.2 | 1.3 | 1.3 | 1.2 | 1.1 | 1.0 | 8.0 | 34 | 107 | 2.2 | .57 |
| 2 | 1.3 | 1.3 | 1.4 | 1.3 | 1.2 | 1.1 | 1.0 | 7.8 | 32 | 101 | 2.2 | 1.9 |
| 3 | 1.2 | 1.5 | 1.4 | 1.3 | 1.2 | 1.1 | 1.0 | 8.4 | 34 | 105 | 2.1 | 1.9 |
| 4 | 1.2 | 1.6 | 1.4 | 1.3 | 1.2 | 1.1 | 1.0 | 12 | 35 | 116 | 2.0 | 1.7 |
| 5 | 1.2 | 1.7 | 1.5 | 1.2 | 1.2 | 1.1 | 1.1 | 16 | 32 | 114 | 2.1 | 1.7 |
| 6 | 1.2 | 1.8 | 1.4 | 1.2 | 1.2 | 1.1 | 1.1 | 21 | 26 | 108 | 1.9 | 1.7 |
| 7 | 1.2 | 1.7 | 1.4 | 1.2 | 1.1 | 1.1 | 1.1 | 25 | 23 | 104 | 1.8 | 1.7 |
| 8 | 1.2 | 1.6 | 1.4 | 1.2 | 1.1 | 1.1 | 1.1 | 26 | 19 | 43 | 1.8 | 1.4 |
| 9 | 1.2 | 1.6 | 1.4 | 1.2 | 1.0 | 1.1 | 1.2 | 26 | 18 | 3.8 | 1.8 | 1.3 |
| 10 | 1.1 | 1.6 | 1.3 | 1.1 | 1.1 | 1.1 | 1.2 | 26 | 16 | 3.2 | 1.7 | 1.3 |
| 11 | 1.2 | 1.6 | 1.3 | 1.0 | 1.1 | 1.0 | 1.2 | 27 | 15 | 2.4 | 1.6 | 1.0 |
| 12 | 1.3 | 1.5 | 1.3 | 1.1 | 1.1 | 1.0 | 1.1 | 24 | 14 | .92 | 1.8 | .61 |
| 13 | 1.3 | 1.5 | 1.2 | 1.2 | 1.1 | 1.1 | 1.2 | 22 | 33 | .87 | 1.7 | .53 |
| 14 | 1.3 | 1.5 | 1.3 | 1.2 | 1.1 | 1.1 | 1.3 | 20 | 105 | 1.7 | 1.7 | .46 |
| 15 | 1.4 | 1.4 | 1.3 | 1.3 | 1.2 | 1.1 | 1.5 | 19 | 104 | 4.3 | 1.8 | .40 |
| 16 | 1.6 | 1.4 | 1.4 | 1.3 | 1.2 | 1.0 | 1.7 | 19 | 106 | 8.0 | 1.4 | .62 |
| 17 | 1.5 | 1.5 | 1.4 | 1.3 | 1.1 | 1.1 | 1.8 | 21 | 104 | 7.5 | 1.5 | 1.1 |
| 18 | 1.6 | 1.6 | 1.3 | 1.2 | 1.1 | 1.1 | 2.0 | 22 | 106 | 4.9 | 1.3 | 1.0 |
| 19 | 1.9 | 1.6 | 1.2 | 1.2 | 1.1 | 1.1 | 2.3 | 25 | 106 | 3.5 | 1.2 | .97 |
| 20 | 2.6 | 1.6 | 1.3 | 1.2 | 1.1 | 1.1 | 2.7 | 30 | 103 | 2.6 | 1.0 | .90 |
| 21 | 4.4 | 1.6 | 1.3 | 1.2 | 1.1 | 1.2 | 3.3 | 39 | 104 | .98 | 1.0 | .74 |
| 22 | 8.4 | 1.5 | 1.4 | 1.2 | 1.1 | 1.2 | 4.0 | 50 | 106 | .84 | .87 | .72 |
| 23 | 3.9 | 1.4 | 1.4 | 1.1 | 1.1 | 1.1 | 4.7 | 59 | 108 | .85 | 1.1 | .72 |
| 24 | 3.4 | 1.5 | 1.4 | 1.2 | 1.1 | 1.1 | 4.5 | 67 | 85 | .94 | 1.5 | .72 |
| 25 | 3.0 | 1.6 | 1.4 | 1.2 | 1.0 | 1.1 | 4.1 | 69 | 45 | 1.4 | 1.0 | .58 |
| 26 | 3.2 | 1.6 | 1.3 | 1.2 | 1.0 | 1.1 | 4.7 | 66 | 46 | 1.1 | .75 | .58 |
| 27 | 3.1 | 1.5 | 1.2 | 1.2 | 1.1 | 1.1 | 5.5 | 78 | 50 | 1.1 | .72 | .58 |
| 28 | 3.1 | 1.4 | 1.2 | 1.2 | 1.1 | 1.1 | 7.0 | 72 | 83 | 2.2 | .68 | .59 |
| 29 | 2.7 | 1.2 | 1.1 | 1.2 | 1.2 | 1.1 | 8.0 | 36 | 100 | 2.3 | .60 | .57 |
| 30 | 2.4 | 1.3 | 1.1 | 1.2 | --- | 1.0 | 9.0 | 35 | 103 | 2.3 | .55 | .50 |
| 31 | 1.8 | --- | 1.2 | 1.1 | --- | 1.0 | --- | 36 | --- | 2.2 | .55 | --- |
| TOTAL | 67.2 | 45.4 | 40.9 | 37.3 | 32.5 | 33.8 | 82.4 | 1012.2 | 1895 | 857.90 | 43.92 | 29.06 |
| MEAN | 2.17 | 1.51 | 1.32 | 1.20 | 1.12 | 1.09 | 2.75 | 32.7 | 63.2 | 27.7 | 1.42 | .97 |
| MAX | 8.4 | 1.8 | 1.5 | 1.3 | 1.2 | 1.2 | 9.0 | 78 | 108 | 116 | 2.2 | 1.9 |
| MIN | 1.1 | 1.2 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 7.8 | 14 | .84 | .55 | .40 |
| AC-FT | 133 | 90 | 81 | 74 | 64 | 67 | 163 | 2010 | 3760 | 1700 | 87 | 58 |

CAL YR 1979 TOTAL 3941.76 MEAN 10.8 MAX 123 MIN .09 AC-FT 7820
WTR YR 1980 TOTAL 4177.58 MEAN 11.4 MAX 116 MIN .40 AC-FT 8290

NOTE.--NO GAGE-HEIGHT RECORD NOV. 27 TO APR. 23.

## 09132050 ANTHRACITE CREEK NEAR SOMERSET, CO

LOCATION.--Lat 38°57'18", long 107°16'11", in SE¼NW¼ sec.6, T.1 S., R.88 W., Gunnison County, Hydrologic Unit 14020004, on right bank 300 ft (91 m) upstream from county bridge 0.1 mi (0.2 km) downstream from Munsey Creek, 5 mi (8.0 km) east of Paonia Reservoir Dam, and 10 mi (16 km) northeast of Somerset.

DRAINAGE AREA.--94.6 mi² (245.0 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,800 ft (2,073 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by small diversions for irrigation of hay meadows.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,200 ft³/s (119 m³/s) about May 27, 1979, gage height, 7.20 ft (2.195 m), from floodmark; minimum daily, 12 ft³/s (0.340 m³/s) Dec. 21, 1977, Dec. 30, 1979, Jan. 4, 9, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,920 ft³/s (54.4 m³/s) at 2200 June 10, gage height, 6.53 ft (1.990 m), only peak above base of 500 ft³/s (14.2 m³/s); minimum daily, 12 ft³/s (0.34 m³/s) Dec. 30, Jan. 4, 9.

REVISIONS.--The maximum discharge for water year 1979 has been revised to 4,200 ft³/s (119 m³/s) about May 27, gage height, 7.20 ft (2.195 m) from floodmarks, only peak above base of 500 ft³/s (14.2 m³/s), this figure supersedes that published in WDR CO-79-2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 19 | 18 | 18 | 14 | 17 | 31 | 31 | 472 | 852 | 565 | 89 | 27 |
| 2 | 19 | 19 | 19 | 14 | 17 | 31 | 28 | 459 | 741 | 554 | 86 | 26 |
| 3 | 19 | 20 | 21 | 13 | 17 | 31 | 28 | 470 | 870 | 493 | 82 | 44 |
| 4 | 19 | 16 | 21 | 12 | 15 | 28 | 26 | 466 | 1010 | 486 | 78 | 43 |
| 5 | 19 | 15 | 21 | 14 | 17 | 26 | 28 | 526 | 1220 | 406 | 74 | 42 |
| 6 | 18 | 15 | 20 | 14 | 21 | 26 | 33 | 720 | 1340 | 352 | 70 | 42 |
| 7 | 17 | 17 | 19 | 14 | 19 | 25 | 33 | 872 | 1360 | 320 | 66 | 41 |
| 8 | 16 | 19 | 19 | 13 | 19 | 24 | 33 | 863 | 1470 | 380 | 64 | 40 |
| 9 | 16 | 19 | 19 | 12 | 19 | 22 | 34 | 738 | 1590 | 333 | 60 | 38 |
| 10 | 16 | 19 | 19 | 14 | 19 | 19 | 41 | 666 | 1650 | 297 | 56 | 45 |
| 11 | 16 | 17 | 19 | 15 | 19 | 21 | 41 | 729 | 1590 | 289 | 53 | 51 |
| 12 | 17 | 17 | 19 | 17 | 21 | 22 | 38 | 622 | 1560 | 308 | 51 | 50 |
| 13 | 16 | 14 | 19 | 15 | 21 | 21 | 37 | 559 | 1340 | 332 | 48 | 46 |
| 14 | 14 | 15 | 19 | 22 | 21 | 22 | 49 | 553 | 1110 | 267 | 47 | 41 |
| 15 | 14 | 19 | 19 | 34 | 22 | 25 | 77 | 553 | 1030 | 239 | 73 | 32 |
| 16 | 14 | 19 | 19 | 25 | 23 | 26 | 105 | 573 | 972 | 209 | 64 | 28 |
| 17 | 14 | 19 | 19 | 22 | 22 | 20 | 125 | 672 | 938 | 192 | 53 | 26 |
| 18 | 17 | 20 | 19 | 20 | 21 | 20 | 163 | 656 | 1010 | 180 | 48 | 25 |
| 19 | 17 | 20 | 19 | 20 | 23 | 26 | 217 | 716 | 1060 | 175 | 45 | 24 |
| 20 | 20 | 20 | 19 | 19 | 23 | 26 | 272 | 862 | 1040 | 156 | 42 | 21 |
| 21 | 30 | 18 | 19 | 18 | 22 | 28 | 340 | 1250 | 1030 | 141 | 39 | 21 |
| 22 | 23 | 15 | 19 | 17 | 19 | 34 | 426 | 1550 | 942 | 129 | 37 | 21 |
| 23 | 20 | 15 | 19 | 17 | 19 | 37 | 468 | 1460 | 925 | 137 | 38 | 21 |
| 24 | 20 | 15 | 15 | 17 | 19 | 38 | 505 | 1420 | 946 | 120 | 38 | 21 |
| 25 | 23 | 16 | 14 | 17 | 17 | 38 | 458 | 1080 | 789 | 112 | 39 | 20 |
| 26 | 23 | 17 | 14 | 21 | 19 | 35 | 456 | 816 | 734 | 109 | 44 | 20 |
| 27 | 21 | 17 | 14 | 19 | 24 | 33 | 433 | 886 | 694 | 99 | 38 | 20 |
| 28 | 21 | 15 | 14 | 19 | 28 | 33 | 469 | 1070 | 548 | 93 | 36 | 19 |
| 29 | 21 | 16 | 14 | 17 | 31 | 33 | 474 | 855 | 522 | 87 | 32 | 18 |
| 30 | 19 | 17 | 12 | 17 | --- | 33 | 602 | 702 | 542 | 88 | 31 | 18 |
| 31 | 17 | --- | 14 | 17 | --- | 33 | --- | 810 | --- | 89 | 30 | --- |
| TOTAL | 575 | 518 | 554 | 539 | 594 | 867 | 6070 | 24646 | 31425 | 7737 | 1651 | 931 |
| MEAN | 18.5 | 17.3 | 17.9 | 17.4 | 20.5 | 28.0 | 202 | 795 | 1048 | 250 | 53.3 | 31.0 |
| MAX | 30 | 20 | 21 | 34 | 31 | 38 | 602 | 1550 | 1650 | 565 | 89 | 51 |
| MIN | 14 | 14 | 12 | 12 | 15 | 19 | 26 | 459 | 522 | 87 | 30 | 18 |
| AC-FT | 1140 | 1030 | 1100 | 1070 | 1180 | 1720 | 12040 | 48890 | 62330 | 15350 | 3270 | 1850 |

CAL YR 1979 TOTAL 86331 MEAN 237 MAX 3500 MIN 12 AC-FT 171200
WTR YR 1980 TOTAL 76107 MEAN 208 MAX 1650 MIN 12 AC-FT 151000

## 09132050 ANTHRACITE CREEK NEAR SOMERSET, CO--Continued

PERIOD OF RECORD.--Cctober 1977 to current year.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 09... | 1245 | 19 | 161 | 8.6 | 12.0 | 8.4 | 0 | K1 | K5 | 69 |
| NOV | | | | | | | | | | |
| 20... | 0955 | 21 | 140 | 8.1 | 1.0 | -- | 2 | K1 | <1 | 64 |
| JAN | | | | | | | | | | |
| 08... | 0900 | 14 | 153 | 7.4 | .0 | 8.9 | 13 | <1 | <1 | 65 |
| FEB | | | | | | | | | | |
| 20... | 1230 | 22 | 133 | 7.4 | 1.0 | 9.4 | 6 | <1 | 27 | 56 |
| MAR | | | | | | | | | | |
| 25... | 0930 | 23 | 120 | 7.2 | 2.5 | 9.2 | 30 | <1 | K3 | 53 |
| MAY | | | | | | | | | | |
| 06... | 0900 | 613 | 70 | 6.8 | 4.0 | 9.0 | 22 | <5 | K10 | 30 |
| JUN | | | | | | | | | | |
| 10... | 1230 | 920 | 60 | 6.7 | 9.0 | 8.2 | 15 | <5 | 320 | 25 |
| JUL | | | | | | | | | | |
| 08... | 1245 | 379 | 65 | 6.8 | 12.0 | 7.8 | 5 | K2 | K1 | 26 |
| AUG | | | | | | | | | | |
| 19... | 1300 | 48 | 130 | 7.1 | 14.0 | 7.5 | -- | <1 | K19 | 55 |

| DATE | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 09... | 8 | 22 | 3.3 | 4.3 | .2 | .9 | 61 | 19 | .9 |
| NOV | | | | | | | | | |
| 20... | 6 | 21 | 2.9 | 4.0 | .2 | .4 | 58 | 17 | 1.4 |
| JAN | | | | | | | | | |
| 08... | 8 | 21 | 3.0 | 4.0 | .2 | .5 | 57 | 19 | 1.6 |
| FEB | | | | | | | | | |
| 20... | 11 | 18 | 2.6 | 3.5 | .2 | .5 | 45 | 11 | 1.2 |
| MAR | | | | | | | | | |
| 25... | 9 | 17 | 2.4 | 3.7 | .2 | .5 | 44 | 9.5 | .8 |
| MAY | | | | | | | | | |
| 06... | 5 | 10 | 1.3 | 2.5 | .2 | 1.0 | 25 | 3.6 | .6 |
| JUN | | | | | | | | | |
| 10... | 8 | 8.4 | .9 | 1.6 | .1 | .4 | 17 | 6.7 | 1.0 |
| JUL | | | | | | | | | |
| 08... | 8 | 8.8 | .8 | 1.5 | .1 | .4 | 18 | 8.5 | .3 |
| AUG | | | | | | | | | |
| 19... | 2 | 18 | 2.5 | 2.8 | .2 | .5 | 53 | 14 | .4 |

K BASED ON NON-IDEAL COLONY COUNT.

## 09132050 ANTHRACITE CREEK NEAR SOMERSET, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|
| OCT<br>09... | .1 | 6.5 | 101 | 94 | .14 | 5.18 | .03 | .000 | .59 |
| NOV<br>20... | .1 | 6.6 | 77 | 88 | .10 | 4.37 | .13 | .020 | .23 |
| JAN<br>08... | .1 | 6.8 | 103 | 90 | .14 | 3.89 | .09 | .000 | .66 |
| FEB<br>20... | .2 | 6.8 | 87 | 71 | .12 | 5.17 | .09 | .010 | .16 |
| MAR<br>25... | .1 | 6.9 | 79 | -- | .11 | 4.91 | .06 | .030 | .23 |
| MAY<br>06... | .1 | 7.1 | 51 | 41 | .07 | 84.4 | .07 | .010 | .77 |
| JUN<br>10... | .1 | 5.7 | 42 | 35 | .06 | 104 | .07 | .010 | .38 |
| JUL<br>08... | .2 | 5.1 | 43 | 37 | .06 | 44.0 | .04 | .000 | .52 |
| AUG<br>19... | .1 | 6.6 | 95 | 77 | .13 | 12.4 | -- | -- | -- |

| DATE | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, TOTAL (MG/L AS N) | PHOSPHORUS, TOTAL (MG/L AS P) | PHOSPHORUS, DISSOLVED (MG/L AS P) | BORON, DISSOLVED (UG/L AS B) | IRON, DISSOLVED (UG/L AS FE) | CARBON, ORGANIC DISSOLVED (MG/L AS C) | CARBON, ORGANIC SUSPENDED (MG/L AS C) | PHYTOPLANKTON, TOTAL (CELLS PER ML) |
|---|---|---|---|---|---|---|---|---|---|
| OCT<br>09... | .59 | .62 | .000 | .000 | 4 | 20 | 3.8 | .1 | 170 |
| NOV<br>20... | .25 | .38 | .000 | .000 | 8 | <10 | 4.6 | .0 | 0 |
| JAN<br>08... | .66 | .75 | .000 | .000 | 4 | <10 | 3.8 | .2 | 120 |
| FEB<br>20... | .17 | .26 | .030 | .000 | 4 | 20 | 2.8 | .5 | 470 |
| MAR<br>25... | .26 | .32 | .010 | .010 | 8 | 34 | 3.6 | .4 | 13 |
| MAY<br>06... | .78 | .85 | .060 | .010 | 20 | 60 | 10 | 1.5 | -- |
| JUN<br>10... | .39 | .46 | .050 | .080 | 30 | 30 | 4.0 | 1.0 | -- |
| JUL<br>08... | .52 | .56 | .030 | .010 | 20 | 19 | 3.7 | .2 | 130 |
| AUG<br>19... | -- | -- | -- | .020 | 0 | 40 | -- | -- | 590 |

## 09132050 ANTHRACITE CREEK NEAR SOMERSET, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DISSOLVED (UG/L AS AS) | BARIUM, TOTAL RECOVERABLE (UG/L AS BA) | BARIUM, DISSOLVED (UG/L AS BA) | BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CADMIUM DISSOLVED (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 20... | 0955 | 10 | -- | 0 | -- | 40 | -- | <1 | -- | <1 | -- |
| JAN 08... | 0900 | 0 | -- | 1 | -- | 40 | -- | <1 | -- | <1 | -- |
| MAR 25... | 0930 | 20 | 1 | 1 | 200 | 40 | 0 | <1 | 0 | <1 | 40 |
| JUL 08... | 1245 | 30 | -- | 2 | -- | 20 | -- | <1 | -- | <1 | -- |

| DATE | CHROMIUM, DISSOLVED (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COBALT, DISSOLVED (UG/L AS CO) | COPPER, DISSOLVED (UG/L AS CU) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | LEAD, DISSOLVED (UG/L AS PB) | LITHIUM TOTAL RECOVERABLE (UG/L AS LI) | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 20... | 0 | -- | <3 | 0 | -- | 11 | -- | 6 | -- | 1 | -- |
| JAN 08... | 0 | -- | <3 | 0 | -- | 0 | -- | <4 | -- | <1 | -- |
| MAR 25... | 0 | 1 | <3 | <10 | 3 | 14 | 0 | <4 | 0 | 2 | .0 |
| JUL 08... | 10 | -- | <3 | <10 | -- | 27 | -- | 5 | -- | <1 | -- |

| DATE | MERCURY DISSOLVED (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SELENIUM, DISSOLVED (UG/L AS SE) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 20... | .1 | -- | <10 | -- | 0 | -- | 0 | -- | 1.0 | 7 |
| JAN 08... | .0 | -- | <10 | -- | 0 | -- | 0 | -- | .0 | <3 |
| MAR 25... | .0 | 1 | <10 | 3 | 0 | 0 | 0 | 190 | <6.0 | 5 |
| JUL 08... | .0 | -- | <10 | -- | 4 | -- | 0 | 89 | <6.0 | 4 |

## 09132050 ANTHRACITE CREEK NEAR SOMERSET, CO--Continued

### PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO AUGUST 1980

| DATE<br>TIME | OCT 9,79<br>1245 | | NOV 20,79<br>0955 | | JAN 8,80<br>0900 | | FEB 20,80<br>1230 | |
|---|---|---|---|---|---|---|---|---|
| TOTAL CELLS/ML | 170 | | 0 | | 120 | | 470 | |
| DIVERSITY: DIVISION | 0.0 | | 0.0 | | 0.3 | | 1.6 | |
| .CLASS | 0.0 | | 0.0 | | 0.3 | | 1.6 | |
| ..ORDER | 0.0 | | 0.0 | | 0.3 | | 1.6 | |
| ...FAMILY | 2.3 | | 0.0 | | 2.3 | | 2.1 | |
| ....GENUS | 2.5 | | 0.0 | | 2.3 | | 2.3 | |
| ORGANISM | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT |
| CHLOROPHYTA (GREEN ALGAE) | | | | | | | | |
| .CHLOROPHYCEAE | | | | | | | | |
| ..CHLOROCOCCALES | | | | | | | | |
| ...OOCYSTACEAE | | | | | | | | |
| ....ANKISTRODESMUS | -- | - | -- | - | -- | - | -- | - |
| ....CHLORELLA | -- | - | -- | - | -- | - | 160[3] | 34 |
| ....OOCYSTIS | -- | - | -- | - | -- | - | -- | - |
| ...SCENEDESMACEAE | | | | | | | | |
| ....SCENEDESMUS | -- | - | -- | - | -- | - | -- | - |
| CHRYSOPHYTA | | | | | | | | |
| .BACILLARIOPHYCEAE | | | | | | | | |
| ..CENTRALES | | | | | | | | |
| ...COSCINODISCACEAE | | | | | | | | |
| ....CYCLOTELLA | -- | - | -- | - | -- | - | -- | - |
| ..PENNALES | | | | | | | | |
| ...ACHNANTHACEAE | | | | | | | | |
| ....ACHNANTHES | 60[3] | 35 | -- | - | 50[3] | 43 | 120[3] | 26 |
| ....COCCONEIS | 4 | 2 | -- | - | -- | - | 20 | 4 |
| ...CYMBELLACEAE | | | | | | | | |
| ....AMPHORA | 1 | 1 | -- | - | -- | - | -- | - |
| ....CYMBELLA | 29[3] | 17 | -- | - | 25[3] | 22 | 50 | 11 |
| ...FRAGILARIACEAE | | | | | | | | |
| ....HANNAEA | 1 | 1 | -- | - | 10 | 9 | -- | - |
| ....SYNEDRA | 34[3] | 20 | -- | - | -- | - | -- | - |
| ...GOMPHONEMATACEAE | | | | | | | | |
| ....GOMPHONEMA | 10 | 6 | -- | - | 5 | 4 | 10 | 2 |
| ...NAVICULACEAE | | | | | | | | |
| ....NAVICULA | 23 | 14 | -- | - | 10 | 9 | 5 | 1 |
| ...NITZSCHIACEAE | | | | | | | | |
| ....NITZSCHIA | 7 | 4 | -- | - | 10 | 9 | -- | - |
| ...SURIRELLACEAE | | | | | | | | |
| ....SURIRELLA | -- | - | -- | - | -- | - | -- | - |
| CYANOPHYTA (BLUE-GREEN ALGAE) | | | | | | | | |
| .CYANOPHYCEAE | | | | | | | | |
| ..CHROOCOCCALES | | | | | | | | |
| ...CHROOCOCCACEAE | | | | | | | | |
| ....COCCOCHLORIS | -- | - | -- | - | -- | - | -- | - |
| ..HORMOGONALES | | | | | | | | |
| ...OSCILLATORIACEAE | | | | | | | | |
| ....OSCILLATORIA | -- | - | -- | - | -- | - | 100[3] | 21 |
| ...RIVULARIACEAE | | | | | | | | |
| ....RAPHIDIOPSIS | -- | - | -- | - | -- | - | -- | - |
| EUGLENOPHYTA (EUGLENOIDS) | | | | | | | | |
| .EUGLENOPHYCEAE | | | | | | | | |
| ..EUGLENALES | | | | | | | | |
| ...EUGLENACEAE | | | | | | | | |
| ....TRACHELOMONAS | -- | - | -- | - | 5 | 4 | 5 | 1 |

NOTE: [3] - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## 09132050 ANTHRACITE CREEK NEAR SOMERSET, CO--Continued

## PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO AUGUST 1980

| DATE | MAR 25,80 | JUN 10,80 | JUL 8,80 | AUG 19,80 |
|---|---|---|---|---|
| TIME | 0930 | 1230 | 1245 | 1300 |
| TOTAL CELLS/ML | 13 | 330 | 130 | 590 |
| DIVERSITY: DIVISION | 0.0 | 0.7 | 0.7 | 0.5 |
| .CLASS | 0.0 | 0.7 | 0.7 | 0.5 |
| ..ORDER | 0.0 | 0.9 | 0.9 | 0.5 |
| ...FAMILY | 0.0 | 1.7 | 0.9 | 0.6 |
| ....GENUS | 0.0 | 1.7 | 0.9 | 0.7 |

| ORGANISM | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT |
|---|---|---|---|---|---|---|---|---|
| CHLOROPHYTA (GREEN ALGAE) | | | | | | | | |
| .CHLOROPHYCEAE | | | | | | | | |
| ..CHLOROCOCCALES | | | | | | | | |
| ...OOCYSTACEAE | | | | | | | | |
| ....ANKISTRODESMUS | -- | - | -- | - | -- | - | 13 | 2 |
| ....CHLORELLA | -- | - | -- | - | -- | - | -- | - |
| ....OOCYSTIS | -- | - | -- | - | -- | - | 26 | 4 |
| ...SCENEDESMACEAE | | | | | | | | |
| ....SCENEDESMUS | -- | - | -- | - | -- | - | 26 | 4 |
| CHRYSOPHYTA | | | | | | | | |
| .BACILLARIOPHYCEAE | | | | | | | | |
| ..CENTRALES | | | | | | | | |
| ...COSCINODISCACEAE | | | | | | | | |
| ....CYCLOTELLA | -- | - | -- | - | 13 | 10 | -- | - |
| ..PENNALES | | | | | | | | |
| ...ACHNANTHACEAE | | | | | | | | |
| ....ACHNANTHES | -- | - | -- | - | -- | - | -- | - |
| ....COCCONEIS | -- | - | -- | - | -- | - | -- | - |
| ...CYMBELLACEAE | | | | | | | | |
| ....AMPHORA | -- | - | -- | - | -- | - | -- | - |
| ....CYMBELLA | -- | - | -- | - | -- | - | -- | - |
| ...FRAGILARIACEAE | | | | | | | | |
| ....HANNAEA | -- | - | -- | - | -- | - | -- | - |
| ....SYNEDRA | 13[3] | 100 | -- | - | -- | - | -- | - |
| ...GOMPHONEMATACEAE | | | | | | | | |
| ....GOMPHONEMA | -- | - | -- | - | -- | - | -- | - |
| ...NAVICULACEAE | | | | | | | | |
| ....NAVICULA | -- | - | 14 | 4 | 13 | 10 | -- | - |
| ...NITZSCHIACEAE | | | | | | | | |
| ....NITZSCHIA | -- | - | 27 | 8 | -- | - | -- | - |
| ...SURIRELLACEAE | | | | | | | | |
| ....SURIRELLA | -- | - | 14 | 4 | -- | - | -- | - |
| CYANOPHYTA (BLUE-GREEN ALGAE) | | | | | | | | |
| .CYANOPHYCEAE | | | | | | | | |
| ..CHROOCOCCALES | | | | | | | | |
| ...CHROOCOCCACEAE | | | | | | | | |
| ....COCCOCHLORIS | -- | - | 14 | 4 | -- | - | -- | - |
| ..HORMOGONALES | | | | | | | | |
| ...OSCILLATORIACEAE | | | | | | | | |
| ....OSCILLATORIA | -- | - | 210[3] | 63 | 100[3] | 80 | 530[3] | 89 |
| ...RIVULARIACEAE | | | | | | | | |
| ....RAPHIDIOPSIS | -- | - | 55[3] | 17 | -- | - | -- | - |
| EUGLENOPHYTA (EUGLENOIDS) | | | | | | | | |
| .EUGLENOPHYCEAE | | | | | | | | |
| ..EUGLENALES | | | | | | | | |
| ...EUGLENACEAE | | | | | | | | |
| ....TRACHELOMONAS | -- | - | -- | - | -- | - | -- | - |

NOTE: [3] - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
¢ - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## 09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO

LOCATION.--Lat 38°55'45", long 107°26'53", in SW¼SE¼ sec.9, T.13 S., R.90 W., Gunnison County, Hydrologic Unit 14020004, on right bank 1.5 mi (2.4 km) east of Somerset and 4.0 mi (6.4 km) (corrected) upstream from Hubbard Creek.

DRAINAGE AREA.--531 mi² (1,375 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area. WDR CO-77-2: 1976.

GAGE.--Water-stage recorder. Datum of gage is 6,033.91 ft (1,840.660 m) National Geodetic Vertical Datum of 1929. Prior to July 22, 1971, at site 100 ft (30 m) downstream at datum 0.31 ft (0.094 m) lower.

REMARKS.--Records good except those for period Nov. 23 to Feb. 26, which are poor. Natural flow of stream affected by small diversions for irrigation in nearby drainage areas, irrigation of about 3,000 acres (12.1 km²) above station, storage in Overland Reservoir, capacity, 6,280 acre-ft (7.74 hm³), and storage in Paonia Reservoir, capacity, 18,300 acre-ft (22.6 hm³) since February 1961. See table below for contents of Paonia Reservoir.

COOPERATION.--Monthend contents, in acre-feet, in Paonia Reservoir; furnished by Water and Power Resources Service.

AVERAGE DISCHARGE.--47 years, 437 ft³/s (12.38 m³/s), 316,660 acre-ft/yr (390 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,860 ft³/s (223 m³/s) June 4, 1957, gage height, 5.83 ft (1.777 m), present datum; minimum daily, 17 ft³/s (0.48 m³/s) Nov. 10, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,700 ft³/s (133 m³/s) at 2100 May 23, gage height, 5.23 ft (1.594 m); minimum daily, 50 ft³/s (1.42 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 110 | 53 | 68 | 74 | 98 | 74 | 81 | 2380 | 3000 | 1700 | 262 | 244 |
| 2 | 70 | 61 | 76 | 76 | 98 | 71 | 83 | 2300 | 2800 | 1690 | 262 | 241 |
| 3 | 69 | 57 | 84 | 72 | 100 | 71 | 80 | 2330 | 2500 | 1520 | 262 | 250 |
| 4 | 66 | 64 | 84 | 76 | 96 | 70 | 83 | 2420 | 2300 | 1360 | 262 | 258 |
| 5 | 75 | 62 | 90 | 72 | 92 | 68 | 99 | 2460 | 2600 | 1180 | 262 | 263 |
| 6 | 76 | 58 | 90 | 72 | 94 | 69 | 116 | 2570 | 2700 | 1040 | 262 | 258 |
| 7 | 76 | 66 | 84 | 70 | 90 | 71 | 116 | 2700 | 2900 | 975 | 262 | 262 |
| 8 | 75 | 69 | 84 | 70 | 80 | 67 | 103 | 2700 | 3000 | 963 | 262 | 258 |
| 9 | 76 | 69 | 82 | 72 | 66 | 65 | 116 | 2710 | 3300 | 853 | 262 | 258 |
| 10 | 74 | 66 | 76 | 70 | 80 | 63 | 149 | 2680 | 3500 | 776 | 262 | 265 |
| 11 | 70 | 59 | 80 | 50 | 86 | 67 | 151 | 2660 | 3740 | 738 | 262 | 283 |
| 12 | 70 | 59 | 64 | 82 | 86 | 68 | 134 | 2640 | 3520 | 698 | 262 | 256 |
| 13 | 70 | 53 | 58 | 92 | 96 | 65 | 146 | 2460 | 3440 | 734 | 262 | 247 |
| 14 | 70 | 58 | 62 | 106 | 96 | 67 | 175 | 2380 | 3310 | 624 | 262 | 241 |
| 15 | 60 | 60 | 72 | 106 | 110 | 74 | 210 | 2390 | 3120 | 572 | 262 | 245 |
| 16 | 59 | 62 | 72 | 86 | 104 | 77 | 270 | 2470 | 2940 | 515 | 262 | 251 |
| 17 | 59 | 67 | 70 | 82 | 98 | 71 | 340 | 2700 | 2810 | 479 | 262 | 247 |
| 18 | 63 | 77 | 64 | 78 | 106 | 75 | 458 | 2600 | 2790 | 454 | 262 | 245 |
| 19 | 65 | 73 | 64 | 76 | 106 | 76 | 874 | 2700 | 2850 | 429 | 261 | 241 |
| 20 | 67 | 68 | 72 | 74 | 100 | 75 | 1910 | 2900 | 2710 | 411 | 258 | 236 |
| 21 | 95 | 62 | 76 | 74 | 96 | 82 | 1990 | 3360 | 2560 | 372 | 258 | 235 |
| 22 | 71 | 70 | 80 | 70 | 102 | 96 | 2170 | 4000 | 2460 | 353 | 258 | 234 |
| 23 | 66 | 76 | 76 | 60 | 98 | 103 | 2240 | 4330 | 2390 | 330 | 255 | 232 |
| 24 | 67 | 84 | 70 | 78 | 96 | 93 | 2080 | 4000 | 2290 | 315 | 255 | 228 |
| 25 | 67 | 88 | 78 | 92 | 88 | 92 | 1960 | 3250 | 2180 | 312 | 255 | 227 |
| 26 | 67 | 92 | 74 | 88 | 80 | 90 | 1980 | 3090 | 2150 | 298 | 255 | 224 |
| 27 | 66 | 86 | 76 | 84 | 78 | 86 | 2030 | 3140 | 2110 | 284 | 255 | 219 |
| 28 | 65 | 70 | 72 | 86 | 71 | 88 | 2110 | 3230 | 1930 | 266 | 256 | 215 |
| 29 | 64 | 54 | 56 | 86 | 77 | 88 | 2210 | 2870 | 1740 | 262 | 254 | 211 |
| 30 | 63 | 60 | 56 | 84 | --- | 86 | 2340 | 2890 | 1700 | 262 | 248 | 143 |
| 31 | 58 | --- | 60 | 78 | --- | 88 | --- | 3260 | --- | 262 | 247 | --- |
| TOTAL | 2169 | 2003 | 2270 | 2436 | 2668 | 2396 | 26804 | 88570 | 81340 | 21027 | 8031 | 7217 |
| MEAN | 70.0 | 66.8 | 73.2 | 78.6 | 92.0 | 77.3 | 893 | 2857 | 2711 | 678 | 259 | 241 |
| MAX | 110 | 92 | 90 | 106 | 110 | 103 | 2340 | 4330 | 3740 | 1700 | 262 | 283 |
| MIN | 58 | 53 | 56 | 50 | 66 | 63 | 80 | 2300 | 1700 | 262 | 247 | 143 |
| AC-FT | 4300 | 3970 | 4500 | 4830 | 5290 | 4750 | 53170 | 175700 | 161300 | 41710 | 15930 | 14310 |
| a | 4110 | 5340 | 5340 | 6390 | 7690 | [illegible]000 | 5570 | 17850 | N/A | N/A | 9240 | 1070 |

CAL YR 1979 TOTAL 226793 MEAN 621 MAX 5820 MIN 25 AC-FT 449800
WTR YR 1980 TOTAL 246931 MEAN 675 MAX 4330 MIN 50 AC-FT 489800

NOTE.--NO GAGE-HEIGHT RECORD NOV. 23 TO FEB. 26.
a MONTHEND CONTENTS, IN ACRE-FEET, IN PAONIA RESERVOIR, FURNISHED BY WATER AND POWER RESOURCES SERVICE

### 09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO--Continued

PERIOD OF RECORD.--October 1977 to current year.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | OXYGEN, DISSOLVED (MG/L) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 11... | 0845 | 70 | 210 | 8.1 | 5.0 | 10.2 | 76 | 0 | 24 | 4.0 | 8.0 |
| NOV 20... | 1230 | 67 | 170 | 8.3 | 1.5 | -- | 68 | 0 | 21 | 3.8 | 8.3 |
| JAN 08... | 1300 | 69 | 225 | 7.7 | .0 | 9.4 | 77 | 0 | 24 | 4.1 | 8.5 |
| FEB 20... | 1530 | 99 | 195 | 7.5 | .0 | 10.3 | 68 | 0 | 21 | 3.8 | 11 |
| MAR 25... | 1300 | 91 | 170 | 7.6 | 3.0 | 9.4 | 71 | 0 | 22 | 4.0 | 9.1 |
| MAY 06... | 1245 | 2490 | 120 | 7.4 | 7.0 | 8.8 | 54 | 0 | 17 | 2.9 | 5.3 |
| JUN 10... | 1600 | 3390 | 85 | 7.2 | 13.0 | 8.0 | 37 | 7 | 12 | 1.8 | 3.3 |
| JUL 08... | 1615 | 928 | 100 | 7.6 | 18.0 | 7.4 | 41 | 3 | 13 | 2.1 | 3.7 |
| AUG 19... | 1545 | 259 | 130 | 7.8 | 15.0 | 7.8 | 57 | -- | 18 | 3.0 | 4.9 |

| DATE | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 11... | .4 | .9 | 85 | 13 | 1.4 | .2 | 9.6 | 112 | .15 | 21.2 |
| NOV 20... | .4 | .8 | 75 | 15 | 1.9 | .1 | 8.9 | 105 | .14 | 19.0 |
| JAN 08... | .4 | .8 | 98 | 12 | 1.9 | .1 | 9.8 | 120 | .16 | 22.6 |
| FEB 20... | .6 | .8 | 73 | 13 | 2.9 | .2 | 8.8 | 105 | .14 | 28.3 |
| MAR 25... | .5 | .7 | 72 | 13 | 3.1 | .1 | 8.7 | 104 | .14 | 25.8 |
| MAY 06... | .3 | 1.2 | 54 | 6.5 | .9 | .1 | 9.1 | 76 | .10 | 511 |
| JUN 10... | .2 | .7 | 30 | -- | 1.0 | .1 | 8.0 | -- | -- | -- |
| JUL 08... | .3 | .6 | 38 | 5.3 | .5 | .2 | 8.1 | 56 | .08 | 140 |
| AUG 19... | .3 | .8 | -- | 5.5 | .6 | .1 | 9.6 | -- | -- | -- |

| DATE | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, TOTAL (MG/L AS N) | PHOSPHORUS, TOTAL (MG/L AS P) | BORON, DISSOLVED (UG/L AS B) | IRON, DISSOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) | CARBON, ORGANIC DISSOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 11... | .02 | .060 | .24 | .30 | .32 | .000 | 20 | 20 | 3.3 | 3.7 |
| NOV 20... | .06 | .040 | .12 | .16 | .22 | .010 | 20 | 10 | 6.2 | 6.9 |
| JAN 08... | .08 | .000 | .65 | .65 | .73 | .010 | 4 | 80 | 2.8 | 2.6 |
| FEB 20... | .08 | .010 | .10 | .11 | .19 | .040 | 10 | 40 | 3.1 | 5.8 |
| MAR 25... | .03 | .010 | .23 | .24 | .27 | .010 | 30 | 20 | 3.5 | 3.7 |
| MAY 06... | .09 | .030 | .76 | .79 | .88 | .090 | 30 | 110 | 6.2 | 7.4 |
| JUN 10... | .06 | .040 | .60 | .64 | .70 | .070 | 30 | 30 | 4.9 | 6.0 |
| JUL 08... | .00 | .000 | .46 | .46 | .46 | .050 | 20 | 30 | -- | 14 |
| AUG 19... | -- | -- | -- | -- | -- | -- | 10 | 230 | -- | -- |

## 09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ALUMINUM, DISSOLVED (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DISSOLVED (UG/L AS AS) | BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) | BERYLLIUM, DISSOLVED (UG/L AS BE) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CADMIUM DISSOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 20... | 1230 | 150 | 20 | 0 | 0 | 0 | <1 | 20 | <1 |
| JAN | | | | | | | | | |
| 08... | 1300 | 110 | 30 | 1 | 1 | 0 | <1 | 0 | <1 |
| MAR | | | | | | | | | |
| 25... | 1300 | 210 | 20 | 1 | 1 | 0 | <1 | 0 | <1 |
| JUL | | | | | | | | | |
| 08... | 1615 | 190 | 30 | 1 | 2 | 0 | <1 | 0 | <1 |

| DATE | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | CHROMIUM, DISSOLVED (UG/L AS CR) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | COPPER, DISSOLVED (UG/L AS CU) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | LEAD, DISSOLVED (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MANGANESE, DISSOLVED (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 20... | 0 | 0 | 0 | 0 | 94 | 29 | 30 | 10 | .0 |
| JAN | | | | | | | | | |
| 08... | 0 | 0 | 1 | 0 | 2 | 0 | 10 | 20 | .0 |
| MAR | | | | | | | | | |
| 25... | 30 | 0 | 2 | 0 | 3 | 0 | 20 | 7 | .0 |
| JUL | | | | | | | | | |
| 08... | 10 | 10 | 4 | 0 | 0 | 0 | 10 | 2 | .0 |

| DATE | MERCURY DISSOLVED (UG/L AS HG) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SELENIUM, DISSOLVED (UG/L AS SE) | VANADIUM, DISSOLVED (UG/L AS V) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | ZINC, DISSOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | |
| 20... | .1 | 0 | 0 | 0 | 0 | 1.0 | 10 | <3 |
| JAN | | | | | | | | |
| 08... | .0 | 3 | 0 | 0 | 0 | .0 | 50 | <3 |
| MAR | | | | | | | | |
| 25... | .0 | 3 | 0 | 0 | 0 | .0 | 40 | 8 |
| JUL | | | | | | | | |
| 08... | .0 | 2 | 3 | 0 | 0 | .0 | 30 | 4 |

### SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT DISCHARGE, SUSPENDED (T/DAY) | DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT DISCHARGE, SUSPENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | MAY | | | | |
| 11... | 0845 | 70 | 9 | 1.7 | 06... | 1245 | 2490 | 171 | 1150 |
| NOV | | | | | JUN | | | | |
| 20... | 1230 | 67 | 4 | .72 | 10... | 1530 | 3390 | 246 | 2250 |
| JAN | | | | | JUL | | | | |
| 08... | 1300 | 70 | 1 | .19 | 08... | 1615 | 928 | 15 | 38 |
| FEB | | | | | AUG | | | | |
| 20... | 1530 | 100 | 40 | 11 | 19... | 1545 | 259 | 4 | 2.8 |
| MAR | | | | | | | | | |
| 25... | 1300 | 92 | 16 | 4.0 | | | | | |

## 09135900 LEROUX CREEK AT HOTCHKISS, CO

LOCATION.--Lat 38°47'53", long 107°43'53", in NW¼NE¼ sec.36, T.14 S., R.93 W., Delta County, Hydrologic Unit 14020004, on left bank at upstream side of culvert, 0.3 mi (0.5 km) west of Hotchkiss city limits, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--66.7 mi² (172.8 km²).

PERIOD OF RECORD.--June 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,315 ft (1,620 m), from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. Natural flow of stream is affected by diversions above station for irrigation and by return flow from irrigated area above station. Mostly return flow after June. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 788 ft³/s (22.3 m³/s) June 11, 1980, gage height, 8.29 ft (2.527 m); minimum daily, 0.55 ft³/s (0.016 m³/s) July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 788 ft³/s (22.3 m³/s) at 2300 June 11, gage height, 8.29 ft (2.527 m); minimum daily, 1.3 ft³/s (0.37 m³/s) July 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11 | 14 | 12 | 11 | 9.6 | 8.9 | 10 | 204 | 257 | 8.6 | 1.8 | 6.1 |
| 2 | 11 | 14 | 12 | 12 | 9.6 | 8.9 | 11 | 179 | 248 | 7.5 | 2.0 | 5.9 |
| 3 | 10 | 13 | 12 | 11 | 9.6 | 8.6 | 11 | 183 | 294 | 6.4 | 2.2 | 4.6 |
| 4 | 9.4 | 13 | 12 | 11 | 9.2 | 8.6 | 11 | 180 | 329 | 4.8 | 2.5 | 4.6 |
| 5 | 9.8 | 13 | 12 | 12 | 9.2 | 8.6 | 12 | 215 | 423 | 4.8 | 2.6 | 4.8 |
| 6 | 10 | 13 | 12 | 12 | 9.2 | 8.2 | 12 | 230 | 300 | 6.9 | 2.6 | 5.6 |
| 7 | 9.8 | 13 | 12 | 12 | 8.9 | 8.2 | 12 | 361 | 312 | 6.1 | 2.6 | 5.9 |
| 8 | 9.8 | 12 | 12 | 13 | 8.9 | 8.2 | 12 | 347 | 323 | 5.4 | 2.6 | 6.4 |
| 9 | 9.6 | 12 | 12 | 13 | 9.2 | 7.9 | 13 | 329 | 369 | 4.6 | 2.8 | 6.7 |
| 10 | 9.6 | 12 | 12 | 13 | 10 | 7.9 | 14 | 248 | 400 | 4.0 | 3.4 | 6.9 |
| 11 | 9.4 | 12 | 12 | 13 | 11 | 7.9 | 16 | 240 | 453 | 4.4 | 4.0 | 7.5 |
| 12 | 9.2 | 12 | 11 | 13 | 12 | 7.5 | 16 | 234 | 546 | 4.2 | 5.1 | 7.5 |
| 13 | 9.6 | 12 | 12 | 15 | 11 | 7.5 | 16 | 195 | 467 | 4.0 | 5.6 | 7.5 |
| 14 | 9.6 | 12 | 13 | 15 | 11 | 7.5 | 16 | 189 | 385 | 2.6 | 5.4 | 7.5 |
| 15 | 9.6 | 12 | 13 | 15 | 11 | 7.2 | 16 | 175 | 293 | 1.5 | 5.4 | 7.5 |
| 16 | 9.9 | 12 | 13 | 14 | 10 | 7.2 | 14 | 172 | 242 | 1.6 | 5.6 | 7.5 |
| 17 | 11 | 12 | 13 | 13 | 10 | 7.2 | 13 | 225 | 216 | 1.9 | 5.6 | 7.5 |
| 18 | 12 | 12 | 13 | 13 | 13 | 8.6 | 26 | 178 | 200 | 1.9 | 6.1 | 7.5 |
| 19 | 11 | 12 | 12 | 13 | 14 | 9.6 | 43 | 163 | 193 | 1.8 | 6.1 | 7.5 |
| 20 | 11 | 12 | 12 | 13 | 14 | 9.6 | 55 | 248 | 147 | 1.9 | 5.9 | 6.7 |
| 21 | 12 | 12 | 12 | 13 | 12 | 9.2 | 67 | 296 | 118 | 1.8 | 4.6 | 6.1 |
| 22 | 12 | 12 | 12 | 11 | 12 | 9.2 | 80 | 323 | 99 | 1.6 | 4.0 | 6.7 |
| 23 | 16 | 12 | 12 | 10 | 11 | 9.2 | 96 | 311 | 82 | 1.9 | 4.8 | 6.9 |
| 24 | 16 | 12 | 12 | 11 | 9.6 | 8.9 | 92 | 284 | 67 | 1.9 | 6.7 | 6.9 |
| 25 | 16 | 12 | 12 | 11 | 9.2 | 8.9 | 106 | 200 | 45 | 1.9 | 6.4 | 6.7 |
| 26 | 15 | 12 | 12 | 10 | 8.9 | 9.2 | 118 | 186 | 33 | 1.8 | 6.1 | 7.5 |
| 27 | 15 | 12 | 12 | 10 | 8.9 | 9.2 | 120 | 236 | 29 | 1.6 | 6.7 | 7.9 |
| 28 | 15 | 12 | 12 | 10 | 8.9 | 9.6 | 145 | 264 | 16 | 1.5 | 6.9 | 7.9 |
| 29 | 15 | 12 | 12 | 9.9 | 8.9 | 9.6 | 162 | 263 | 12 | 1.4 | 6.9 | 7.9 |
| 30 | 15 | 12 | 12 | 9.6 | --- | 9.6 | 233 | 215 | 8.9 | 1.3 | 6.7 | 7.9 |
| 31 | 14 | --- | 11 | 9.6 | --- | 9.6 | --- | 252 | --- | 1.3 | 6.7 | --- |
| TOTAL | 363.3 | 369 | 375 | 372.1 | 299.8 | 266.0 | 1568 | 7325 | 6906.9 | 102.9 | 146.4 | 204.1 |
| MEAN | 11.7 | 12.3 | 12.1 | 12.0 | 10.3 | 8.58 | 52.3 | 236 | 230 | 3.32 | 4.72 | 6.80 |
| MAX | 16 | 14 | 13 | 15 | 14 | 9.6 | 233 | 361 | 546 | 8.6 | 6.9 | 7.9 |
| MIN | 9.2 | 12 | 11 | 9.6 | 8.9 | 7.2 | 10 | 163 | 8.9 | 1.3 | 1.8 | 4.6 |
| AC-FT | 721 | 732 | 744 | 738 | 595 | 528 | 3110 | 14530 | 13700 | 204 | 290 | 405 |

CAL YR 1979 TOTAL 12316.2 MEAN 33.7 MAX 520 MIN 2.8 AC-FT 24430
WTR YR 1980 TOTAL 18298.5 MEAN 50.0 MAX 546 MIN 1.3 AC-FT 36300

NOTE.--NO GAGE-HEIGHT RECORD DEC. 4 TO JAN. 8.

## 09136200 GUNNISON RIVER NEAR LAZEAR, CO

LOCATION.--Lat 38°46'59", long 107°50'14", in NE¼NE¼ sec.1, T.15 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank 300 ft (91 m) downstream from North Fork Gunnison River and 3.0 mi (4.8 km) west of Lazear.

DRAINAGE AREA.--5,241 mi² (13,574 km²).

PERIOD OF RECORD.--May 1962 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,090 ft (1,551 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power development, and diversions for irrigation of about 150,000 acres (607 km²), part of which is in the Uncompahgre River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s (419 m³/s) May 13, 1962, gage height, 6.30 ft (1.920 m), from recorded range in stage; minimum daily, 115 ft³/s (3.26 m³/s) Oct. 6, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,000 ft³/s (312 m³/s) at 2400 May 23, gage height, 5.97 ft (1.820 m); minimum daily, 497 ft³/s (14.1 m³/s) Nov. 4, 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1230 | 597 | 1360 | 1780 | 1760 | 1780 | 1910 | 5090 | 4610 | 3380 | 941 | 1010 |
| 2 | 1220 | 1020 | 1740 | 1820 | 1800 | 1760 | 1880 | 4790 | 4010 | 3400 | 941 | 890 |
| 3 | 1200 | 542 | 1860 | 1800 | 1800 | 1760 | 1780 | 4790 | 3530 | 3320 | 920 | 785 |
| 4 | 941 | 497 | 1910 | 1800 | 1800 | 1780 | 1780 | 4940 | 3200 | 3200 | 890 | 785 |
| 5 | 1050 | 497 | 1910 | 1780 | 1800 | 1760 | 1800 | 5060 | 4700 | 3080 | 1170 | 776 |
| 6 | 1270 | 497 | 1860 | 1820 | 1800 | 1800 | 1860 | 5300 | 5210 | 2920 | 1260 | 749 |
| 7 | 1220 | 519 | 1820 | 1840 | 1800 | 1950 | 1860 | 6180 | 4430 | 2720 | 1240 | 758 |
| 8 | 1170 | 1260 | 1840 | 1840 | 1780 | 1930 | 1740 | 5900 | 4010 | 2410 | 1030 | 776 |
| 9 | 1170 | 1290 | 1840 | 1910 | 1780 | 1930 | 1640 | 6000 | 4010 | 2320 | 1020 | 785 |
| 10 | 1030 | 1270 | 1840 | 1950 | 1760 | 1910 | 1590 | 5570 | 4670 | 1700 | 974 | 860 |
| 11 | 700 | 1440 | 1820 | 1880 | 1780 | 1880 | 1270 | 5750 | 6110 | 1640 | 850 | 963 |
| 12 | 730 | 1550 | 1740 | 1950 | 1780 | 1860 | 1620 | 6140 | 7200 | 1360 | 941 | 941 |
| 13 | 1190 | 1240 | 1740 | 1990 | 1800 | 1860 | 1660 | 5810 | 7200 | 1400 | 930 | 1160 |
| 14 | 1220 | 692 | 1740 | 1950 | 1800 | 1970 | 1800 | 5810 | 6390 | 1290 | 920 | 1150 |
| 15 | 1300 | 700 | 1760 | 1990 | 1840 | 1990 | 2080 | 5660 | 5900 | 1220 | 974 | 1240 |
| 16 | 1080 | 716 | 1760 | 1680 | 1840 | 2080 | 2040 | 5720 | 5570 | 1160 | 985 | 1360 |
| 17 | 560 | 716 | 1760 | 1170 | 1800 | 2060 | 2040 | 7080 | 5030 | 1110 | 963 | 1350 |
| 18 | 566 | 749 | 1780 | 1430 | 1860 | 2060 | 2170 | 6080 | 4910 | 1080 | 963 | 1090 |
| 19 | 560 | 767 | 1780 | 1880 | 1950 | 2080 | 2410 | 6250 | 4970 | 1060 | 920 | 1050 |
| 20 | 578 | 767 | 1760 | 1860 | 1910 | 2060 | 3560 | 6760 | 4580 | 1060 | 920 | 1040 |
| 21 | 700 | 749 | 1790 | 1840 | 1860 | 2080 | 3800 | 7560 | 4280 | 1050 | 941 | 1050 |
| 22 | 676 | 724 | 1780 | 1800 | 1840 | 2100 | 4010 | 9000 | 4100 | 1010 | 880 | 1100 |
| 23 | 749 | 716 | 1760 | 1700 | 1840 | 2130 | 4340 | 9560 | 3920 | 963 | 963 | 1120 |
| 24 | 542 | 724 | 1760 | 1740 | 1800 | 1930 | 4490 | 9560 | 3560 | 952 | 1010 | 1120 |
| 25 | 584 | 749 | 1790 | 1820 | 1780 | 2020 | 4040 | 8120 | 3420 | 963 | 1160 | 1100 |
| 26 | 578 | 758 | 1780 | 1800 | 1780 | 1950 | 4130 | 7160 | 3380 | 963 | 1350 | 1080 |
| 27 | 572 | 749 | 1820 | 1840 | 1800 | 1460 | 4040 | 6760 | 3380 | 941 | 1270 | 1020 |
| 28 | 572 | 776 | 1740 | 1800 | 1780 | 1910 | 4070 | 6180 | 3200 | 930 | 1100 | 996 |
| 29 | 572 | 1400 | 1780 | 1780 | 1780 | 1990 | 4130 | 6080 | 3000 | 920 | 1050 | 1060 |
| 30 | 590 | 1430 | 1780 | 1780 | --- | 2080 | 4970 | 4910 | 3080 | 910 | 1010 | 1100 |
| 31 | 590 | --- | 1800 | 1760 | --- | 2020 | --- | 3920 | --- | 930 | 1020 | --- |
| TOTAL | 26710 | 26101 | 55180 | 55780 | 52500 | 59930 | 80510 | 193490 | 135560 | 51362 | 31506 | 30264 |
| MEAN | 862 | 870 | 1780 | 1799 | 1810 | 1933 | 2684 | 6242 | 4519 | 1657 | 1016 | 1009 |
| MAX | 1300 | 1550 | 1910 | 1990 | 1950 | 2130 | 4970 | 9560 | 7200 | 3400 | 1350 | 1360 |
| MIN | 542 | 497 | 1360 | 1170 | 1760 | 1460 | 1270 | 3920 | 3000 | 910 | 850 | 749 |
| AC-FT | 52980 | 51770 | 109400 | 110600 | 104100 | 118900 | 159700 | 383800 | 268900 | 101900 | 62490 | 60030 |

CAL YR 1979 TOTAL 824726 MEAN 2260 MAX 8340 MIN 497 AC-FT 1636000
WTR YR 1980 TOTAL 798893 MEAN 2183 MAX 9560 MIN 497 AC-FT 1585000

## 09137050 CURRANT CREEK NEAR READ, CO

LOCATION.--Lat 38°47'05", long 107°56'18", in SW¼SE¼ sec.31, T.14 S., R.94 W., Delta County, Hydrologic Unit 14020005, on right bank 0.2 mi (0.3 km) downstream from Dry Creek, 0.4 mi (0.6 km) upstream from mouth, 0.7 mi (1.1 km) northeast of Austin, and 2.4 mi (3.9 km) northeast of Read.

DRAINAGE AREA.--56.9 mi² (147.4 km²).

PERIOD OF RECORD.--May 1976 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,035 ft (1,535 m), from topographic map.

REMARKS.--Records fair. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 420 ft³/s (11.9 m³/s) May 22, 1980, gage height, 5.12 ft (1.561 m), no flow Aug. 2, 4, 5, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 420 ft³/s (11.9 m³/s) at 0500 May 22, gage height, 5.12 ft (1.561 m); minimum daily, 0.02 ft³/s (0.001 m³/s) July 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.6 | 5.3 | 4.4 | 4.8 | 7.5 | 7.4 | 9.2 | 49 | 79 | 1.8 | .21 | .72 |
| 2 | 3.2 | 5.6 | 4.4 | 4.7 | 7.5 | 7.5 | 11 | 43 | 58 | 1.8 | .21 | .70 |
| 3 | 2.8 | 5.5 | 4.7 | 4.8 | 7.9 | 7.9 | 10 | 40 | 54 | 3.5 | .04 | .82 |
| 4 | 3.4 | 5.6 | 5.0 | 4.8 | 8.2 | 7.9 | 9.7 | 36 | 44 | 2.4 | .04 | .88 |
| 5 | 3.5 | 5.3 | 5.2 | 4.8 | 7.9 | 7.7 | 9.3 | 46 | 47 | 1.8 | .06 | 1.1 |
| 6 | 3.1 | 5.2 | 5.1 | 4.8 | 8.0 | 7.7 | 9.0 | 73 | 44 | 1.8 | .14 | .94 |
| 7 | 2.6 | 6.0 | 4.8 | 4.8 | 8.7 | 9.2 | 8.8 | 249 | 36 | 1.7 | .08 | .95 |
| 8 | 2.8 | 6.8 | 4.9 | 4.8 | 8.3 | 8.5 | 8.5 | 203 | 32 | 1.8 | .04 | .55 |
| 9 | 2.5 | 6.3 | 5.1 | 4.9 | 7.2 | 8.2 | 8.4 | 193 | 40 | 1.4 | .04 | .82 |
| 10 | 2.5 | 6.4 | 5.1 | 5.5 | 7.1 | 7.8 | 9.0 | 73 | 40 | .57 | .05 | 1.7 |
| 11 | 3.1 | 6.8 | 5.2 | 5.2 | 7.5 | 7.9 | 10 | 75 | 39 | .59 | .05 | 2.2 |
| 12 | 3.3 | 6.9 | 5.0 | 6.6 | 7.5 | 8.0 | 10 | 105 | 31 | .35 | .05 | 2.4 |
| 13 | 2.9 | 6.9 | 4.5 | 7.6 | 8.2 | 7.2 | 8.9 | 41 | 27 | .55 | .36 | 2.9 |
| 14 | 3.1 | 7.1 | 4.4 | 7.6 | 8.5 | 7.3 | 10 | 51 | 24 | .52 | .35 | 3.0 |
| 15 | 2.7 | 7.3 | 4.5 | 8.0 | 12 | 7.6 | 16 | 19 | 14 | .27 | .71 | 4.2 |
| 16 | 3.1 | 7.6 | 4.5 | 6.2 | 12 | 7.5 | 25 | 27 | 9.4 | .12 | .49 | 4.8 |
| 17 | 3.0 | 7.9 | 4.5 | 5.7 | 9.5 | 6.6 | 32 | 134 | 7.5 | .10 | .48 | 4.4 |
| 18 | 3.3 | 9.4 | 4.5 | 5.7 | 11 | 7.0 | 38 | 98 | 5.1 | .08 | .37 | 3.5 |
| 19 | 3.4 | 10 | 4.5 | 5.3 | 15 | 7.4 | 55 | 107 | 4.8 | .08 | .07 | 3.7 |
| 20 | 3.5 | 9.6 | 4.5 | 5.0 | 12 | 7.2 | 73 | 132 | 4.5 | .05 | .09 | 3.5 |
| 21 | 4.8 | 8.3 | 4.6 | 5.0 | 11 | 7.2 | 96 | 152 | 3.5 | .03 | .30 | 3.5 |
| 22 | 3.9 | 7.3 | 4.9 | 5.8 | 10 | 7.4 | 98 | 257 | 3.0 | .02 | .05 | 3.4 |
| 23 | 5.0 | 7.1 | 4.9 | 7.2 | 9.4 | 7.8 | 100 | 252 | 2.5 | .02 | .10 | 3.4 |
| 24 | 5.3 | 7.5 | 4.8 | 7.6 | 8.4 | 6.6 | 90 | 179 | 2.3 | .06 | 1.1 | 3.4 |
| 25 | 5.4 | 8.1 | 4.8 | 8.1 | 7.9 | 8.9 | 28 | 86 | 2.1 | .15 | 1.2 | 3.4 |
| 26 | 5.4 | 8.4 | 4.8 | 8.1 | 7.8 | 10 | 43 | 49 | 2.0 | .10 | 1.4 | 3.5 |
| 27 | 5.3 | 7.6 | 4.9 | 8.2 | 7.9 | 9.7 | 44 | 43 | 2.6 | .17 | 1.0 | 3.6 |
| 28 | 5.2 | 6.0 | 4.8 | 8.0 | 8.0 | 9.3 | 47 | 65 | 2.4 | .48 | .81 | 3.6 |
| 29 | 5.3 | 4.6 | 4.8 | 8.2 | 8.1 | 8.8 | 51 | 78 | 2.3 | .58 | .86 | 3.6 |
| 30 | 5.3 | 4.6 | 4.8 | 8.0 | --- | 8.8 | 100 | 56 | 2.0 | .88 | 1.5 | 4.0 |
| 31 | 5.3 | --- | 4.7 | 7.1 | --- | 9.0 | --- | 79 | --- | .41 | 1.2 | --- |
| TOTAL | 117.6 | 207.0 | 147.6 | 192.9 | 260.0 | 247.0 | 1067.8 | 3090 | 665.0 | 24.18 | 13.45 | 79.18 |
| MEAN | 3.79 | 6.90 | 4.76 | 6.22 | 8.97 | 7.97 | 35.6 | 99.7 | 22.2 | .78 | .43 | 2.64 |
| MAX | 5.4 | 10 | 5.2 | 8.2 | 15 | 10 | 100 | 257 | 79 | 3.5 | 1.5 | 4.8 |
| MIN | 2.5 | 4.6 | 4.4 | 4.7 | 7.1 | 6.6 | 8.4 | 19 | 2.0 | .02 | .04 | .55 |
| AC-FT | 233 | 411 | 293 | 383 | 516 | 490 | 2120 | 6130 | 1320 | 48 | 27 | 157 |

CAL YR 1979 TOTAL 4792.11 MEAN 13.1 MAX 113 MIN .00 AC-FT 9510
WTR YR 1980 TOTAL 6111.71 MEAN 16.7 MAX 257 MIN .02 AC-FT 12120

## 09143000 SURFACE CREEK NEAR CEDAREDGE, CO

LOCATION.--Lat 38°59'05", long 107°51'13", in NW¼NW¼ sec.25, T.12 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank 5 ft (2 m) downstream from private bridge, 1.4 mi (2.3 km) downstream from Caesar Creek, and 7.0 mi (11.3 km) northeast of Cedaredge.

DRAINAGE AREA.--26.7 mi² (69.2 km²).

PERIOD OF RECORD.--July 1939 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,261 ft (2,518 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Flow regulated by many small reservoirs. Some water imported from Leon Lake in Plateau Creek drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--41 years, 41.3 ft³/s (1.170 m³/s), 29,920 acre-ft/yr (36.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft³/s (17.8 m³/s) June 8, 1980, gage height, 3.32 ft (1.012 m), from rating curve extended above 310 ft³/s (8.8 m³/s); maximum gage height, 5.10 ft (1.554 m) Apr. 13, 1958 (ice jam); minimum daily discharge, 0.80 ft³/s (0.023 m³/s) Jan. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 630 ft³/s (17.8 m³/s) at 1930 June 8, gage height, 3.32 ft (1.012 m); minimum daily, 2.6 ft³/s (0.074 m³/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13 | 14 | 3.6 | 3.6 | 3.2 | 3.8 | 3.6 | 65 | 242 | 186 | 46 | 54 |
| 2 | 12 | 14 | 3.6 | 3.8 | 3.2 | 4.0 | 4.0 | 50 | 217 | 189 | 35 | 48 |
| 3 | 9.7 | 14 | 3.6 | 3.6 | 3.4 | 4.0 | 3.8 | 50 | 242 | 171 | 35 | 51 |
| 4 | 8.8 | 16 | 3.6 | 3.4 | 3.4 | 4.0 | 4.0 | 70 | 256 | 148 | 35 | 71 |
| 5 | 8.5 | 17 | 3.8 | 3.4 | 3.2 | 4.0 | 4.8 | 100 | 270 | 128 | 70 | 71 |
| 6 | 11 | 16 | 4.0 | 3.4 | 3.2 | 4.0 | 5.5 | 150 | 262 | 123 | 80 | 70 |
| 7 | 11 | 15 | 4.6 | 3.2 | 3.4 | 4.0 | 5.0 | 250 | 260 | 123 | 92 | 69 |
| 8 | 12 | 15 | 4.0 | 3.2 | 3.2 | 4.0 | 4.0 | 200 | 326 | 125 | 92 | 70 |
| 9 | 12 | 14 | 3.6 | 3.2 | 3.2 | 4.0 | 5.0 | 150 | 346 | 117 | 103 | 41 |
| 10 | 12 | 14 | 3.4 | 3.2 | 3.4 | 4.0 | 6.0 | 78 | 343 | 101 | 101 | 41 |
| 11 | 12 | 13 | 3.4 | 2.6 | 3.4 | 4.0 | 6.5 | 92 | 322 | 94 | 99 | 31 |
| 12 | 12 | 12 | 3.4 | 3.4 | 3.6 | 3.8 | 5.0 | 74 | 326 | 94 | 88 | 29 |
| 13 | 12 | 11 | 3.4 | 3.6 | 3.8 | 3.6 | 5.5 | 56 | 315 | 94 | 84 | 37 |
| 14 | 12 | 10 | 3.4 | 3.8 | 4.2 | 3.8 | 6.5 | 54 | 308 | 88 | 74 | 35 |
| 15 | 12 | 9.0 | 3.2 | 3.4 | 4.8 | 4.0 | 10 | 54 | 294 | 77 | 76 | 34 |
| 16 | 9.4 | 7.6 | 3.2 | 3.2 | 4.6 | 3.6 | 12 | 68 | 273 | 69 | 66 | 24 |
| 17 | 9.4 | 6.5 | 3.2 | 3.2 | 4.2 | 3.4 | 13 | 86 | 266 | 62 | 64 | 23 |
| 18 | 9.7 | 6.0 | 3.2 | 3.2 | 4.2 | 3.6 | 17 | 77 | 259 | 59 | 62 | 25 |
| 19 | 9.7 | 7.9 | 3.2 | 3.2 | 4.2 | 3.8 | 26 | 112 | 252 | 74 | 68 | 28 |
| 20 | 12 | 7.3 | 3.4 | 3.0 | 4.2 | 4.0 | 32 | 150 | 231 | 73 | 68 | 41 |
| 21 | 12 | 7.0 | 3.4 | 2.8 | 4.0 | 4.4 | 40 | 183 | 231 | 70 | 69 | 40 |
| 22 | 12 | 5.5 | 3.4 | 2.8 | 3.8 | 5.0 | 50 | 248 | 224 | 89 | 70 | 38 |
| 23 | 12 | 4.5 | 3.4 | 2.8 | 3.8 | 5.0 | 46 | 259 | 217 | 88 | 68 | 24 |
| 24 | 11 | 4.2 | 3.4 | 3.0 | 3.6 | 4.6 | 40 | 201 | 214 | 88 | 74 | 25 |
| 25 | 10 | 4.0 | 3.4 | 3.0 | 3.4 | 4.8 | 38 | 159 | 210 | 86 | 68 | 44 |
| 26 | 11 | 4.0 | 3.4 | 3.0 | 3.8 | 4.6 | 50 | 165 | 204 | 86 | 69 | 45 |
| 27 | 14 | 3.8 | 3.4 | 3.2 | 3.8 | 4.0 | 60 | 177 | 204 | 84 | 65 | 34 |
| 28 | 14 | 3.6 | 3.4 | 3.0 | 4.0 | 4.6 | 70 | 207 | 195 | 82 | 68 | 34 |
| 29 | 14 | 3.6 | 3.2 | 3.2 | 4.0 | 4.2 | 60 | 210 | 183 | 84 | 66 | 34 |
| 30 | 14 | 3.6 | 3.4 | 3.0 | --- | 4.0 | 75 | 231 | 180 | 84 | 56 | 34 |
| 31 | 14 | --- | 3.6 | 3.0 | --- | 4.0 | --- | 248 | --- | 59 | 54 | --- |
| TOTAL | 358.2 | 283.1 | 108.2 | 99.4 | 108.2 | 126.6 | 708.2 | 4274 | 7692 | 3095 | 2167 | 1245 |
| MEAN | 11.6 | 9.44 | 3.49 | 3.21 | 3.73 | 4.08 | 23.6 | 138 | 256 | 99.8 | 69.9 | 41.5 |
| MAX | 14 | 17 | 4.6 | 3.8 | 4.8 | 5.0 | 75 | 259 | 346 | 189 | 103 | 71 |
| MIN | 8.5 | 3.6 | 3.2 | 2.6 | 3.2 | 3.4 | 3.6 | 50 | 180 | 59 | 35 | 23 |
| AC-FT | 710 | 562 | 215 | 197 | 215 | 251 | 1400 | 8480 | 15260 | 6140 | 4300 | 2470 |

CAL YR 1979 TOTAL 18081.9 MEAN 49.5 MAX 276 MIN 1.5 AC-FT 35870
WTR YR 1980 TOTAL 20264.9 MEAN 55.4 MAX 346 MIN 2.6 AC-FT 40200

NOTE.--NO GAGE-HEIGHT RECORD NOV. 24 TO MAY 9.

## 09143500 SURFACE CREEK AT CEDAREDGE, CO

LOCATION.--Lat 38°54'06", long 107°55'14", in SW¼SE¼ sec.20, T.13 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank at Cedaredge, 700 ft (210 m) east of State Highway 65, and 8.5 mi (13.7 km) upstream from mouth.

DRAINAGE AREA.--39.5 mi² (102.3 km²).

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,220 ft (1,896 m), from topographic map. Prior to June 8, 1917, nonrecording gage at present site at datum 0.50 ft (0.152 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by diversions to and from nearby streams, many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--64 years, 27.1 ft³/s (0.767 m³s), 19,630 acre-ft/yr (24.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft³/s (33.7 m³/s) May 13, 1941, gage height, 2.50 ft (0.762 m), from rating curve extended above 640 ft³/s (18 m³/s); no flow Sept. 25, 1939, and practically no flow at times in some winters.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 530 ft³/s (15.0 m³/s) at 2030 May 22, gage height, 2.98 ft (0.908 m); minimum daily, 2.7 ft³/s (0.076 m³/s) Nov. 21, 22, Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | 10 | 3.6 | 3.7 | 3.4 | 3.9 | 3.7 | 55 | 221 | 93 | 20 | 11 |
| 2 | 8.5 | 11 | 3.6 | 3.9 | 3.4 | 4.1 | 4.2 | 42 | 200 | 99 | 17 | 15 |
| 3 | 6.4 | 11 | 3.6 | 3.6 | 3.6 | 4.1 | 3.9 | 43 | 200 | 83 | 16 | 19 |
| 4 | 7.0 | 10 | 3.6 | 3.6 | 3.6 | 4.1 | 4.1 | 51 | 209 | 66 | 18 | 31 |
| 5 | 7.4 | 10 | 3.8 | 3.6 | 3.4 | 4.1 | 5.2 | 64 | 242 | 61 | 35 | 32 |
| 6 | 7.4 | 9.0 | 4.0 | 3.6 | 3.4 | 4.1 | 5.5 | 97 | 233 | 58 | 37 | 32 |
| 7 | 7.7 | 9.0 | 4.7 | 3.6 | 3.6 | 4.2 | 5.2 | 233 | 245 | 56 | 26 | 31 |
| 8 | 7.7 | 8.0 | 4.2 | 3.4 | 3.2 | 4.1 | 4.1 | 191 | 263 | 62 | 20 | 31 |
| 9 | 7.4 | 7.0 | 3.6 | 3.4 | 3.4 | 4.1 | 5.2 | 131 | 367 | 52 | 27 | 20 |
| 10 | 6.1 | 7.0 | 3.4 | 3.4 | 3.6 | 4.1 | 6.6 | 83 | 339 | 53 | 29 | 18 |
| 11 | 6.4 | 6.0 | 3.4 | 2.7 | 3.6 | 4.2 | 6.6 | 97 | 323 | 51 | 27 | 14 |
| 12 | 6.1 | 6.0 | 3.6 | 3.6 | 3.8 | 4.1 | 5.2 | 76 | 335 | 57 | 28 | 12 |
| 13 | 8.3 | 5.0 | 3.6 | 3.6 | 3.9 | 3.7 | 5.5 | 51 | 327 | 61 | 30 | 18 |
| 14 | 8.3 | 4.6 | 3.6 | 3.9 | 4.4 | 4.1 | 6.6 | 49 | 275 | 56 | 22 | 17 |
| 15 | 8.6 | 4.0 | 3.4 | 3.7 | 5.2 | 4.4 | 11 | 49 | 257 | 52 | 26 | 17 |
| 16 | 7.4 | 3.2 | 3.4 | 3.4 | 4.7 | 3.7 | 13 | 63 | 233 | 48 | 24 | 14 |
| 17 | 6.4 | 3.9 | 3.4 | 3.2 | 4.2 | 3.4 | 15 | 107 | 209 | 48 | 23 | 13 |
| 18 | 7.4 | 4.4 | 3.4 | 3.4 | 4.4 | 3.7 | 19 | 76 | 185 | 45 | 22 | 11 |
| 19 | 7.7 | 4.2 | 3.4 | 3.2 | 4.4 | 3.9 | 29 | 113 | 191 | 36 | 35 | 11 |
| 20 | 9.2 | 4.1 | 3.4 | 3.2 | 4.4 | 4.1 | 36 | 168 | 175 | 30 | 39 | 12 |
| 21 | 14 | 2.7 | 3.4 | 3.0 | 4.2 | 4.7 | 43 | 254 | 162 | 27 | 36 | 8.9 |
| 22 | 8.3 | 2.7 | 3.6 | 2.8 | 4.1 | 5.2 | 51 | 332 | 148 | 26 | 36 | 8.9 |
| 23 | 12 | 3.9 | 3.6 | 2.8 | 3.9 | 5.2 | 51 | 371 | 140 | 25 | 35 | 9.4 |
| 24 | 11 | 4.1 | 3.6 | 3.0 | 3.7 | 4.7 | 44 | 263 | 129 | 33 | 39 | 11 |
| 25 | 9.8 | 4.1 | 3.6 | 3.0 | 3.4 | 5.0 | 41 | 182 | 111 | 36 | 35 | 18 |
| 26 | 8.6 | 3.9 | 3.6 | 3.2 | 3.9 | 4.7 | 53 | 178 | 99 | 37 | 39 | 19 |
| 27 | 13 | 3.7 | 3.6 | 3.4 | 3.9 | 4.1 | 64 | 218 | 99 | 36 | 39 | 18 |
| 28 | 13 | 3.6 | 3.6 | 3.2 | 4.4 | 5.0 | 74 | 257 | 97 | 36 | 26 | 18 |
| 29 | 14 | 3.6 | 3.4 | 3.4 | 4.4 | 4.4 | 61 | 233 | 90 | 44 | 20 | 18 |
| 30 | 9.2 | 3.6 | 3.6 | 3.2 | --- | 4.2 | 78 | 227 | 90 | 41 | 15 | 18 |
| 31 | 9.0 | --- | 3.6 | 3.2 | --- | 4.2 | --- | 230 | --- | 28 | 13 | --- |
| TOTAL | 273.3 | 173.3 | 111.9 | 103.9 | 113.5 | 131.6 | 754.6 | 4584 | 6194 | 1536 | 854 | 526.2 |
| MEAN | 8.82 | 5.78 | 3.61 | 3.35 | 3.91 | 4.25 | 25.2 | 148 | 206 | 49.5 | 27.5 | 17.5 |
| MAX | 14 | 11 | 4.7 | 3.9 | 5.2 | 5.2 | 78 | 371 | 367 | 99 | 39 | 32 |
| MIN | 6.1 | 2.7 | 3.4 | 2.7 | 3.2 | 3.4 | 3.7 | 42 | 90 | 25 | 13 | 8.9 |
| AC-FT | 542 | 344 | 222 | 206 | 225 | 261 | 1500 | 9090 | 12290 | 3050 | 1690 | 1040 |

CAL YR 1979 TOTAL 12612.0 MEAN 34.6 MAX 260 MIN 2.6 AC-FT 25020
WTR YR 1980 TOTAL 15356.3 MEAN 42.0 MAX 371 MIN 2.7 AC-FT 30460

## 09144200 TONGUE CREEK AT CORY, CO

LOCATION.--Lat 38°47'16", long 107°59'41", in SE¼SE¼ (revised) sec.34, T.14 S., R.95 W., Delta County, Hydrologic Unit 14020005, on left bank at downstream side of bridge, 500 ft (150 m) upstream from North Delta canal headgate, 0.5 mi (0.8 km) west of Cory, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--196 mi$^2$ (508 km$^2$).

PERIOD OF RECORD.--October 1957 to September 1968, May 1976 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,030 ft (1,533 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Natural flow of stream affected by many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Diversions to and from nearby streams. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years (water years 1958-68, 1977-80), 32.1 ft$^3$/s (0.909 m$^3$/s), 23,260 acre-ft/yr (28.7 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 855 ft$^3$/s (24.2 m$^3$/s) May 23, 1980, gage height, 5.86 ft (1.786 m); minimum daily, 0.35 ft$^3$/s (0.010 m$^3$/s) July 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 855 ft$^3$/s (24.2 m$^3$/s) at 0030 May 23, gage height, 5.86 ft (1.786 m); minimum daily, 12 ft$^3$/s (0.34 m$^3$/s) July 29, Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 45 | 40 | 26 | 29 | 34 | 33 | 225 | 333 | 43 | 15 | 20 |
| 2 | 19 | 48 | 40 | 26 | 27 | 34 | 35 | 123 | 275 | 73 | 15 | 16 |
| 3 | 21 | 49 | 36 | 26 | 35 | 34 | 33 | 116 | 266 | 82 | 16 | 17 |
| 4 | 21 | 50 | 36 | 26 | 33 | 35 | 35 | 130 | 283 | 50 | 17 | 18 |
| 5 | 23 | 42 | 37 | 25 | 29 | 35 | 38 | 160 | 307 | 41 | 16 | 18 |
| 6 | 23 | 39 | 36 | 25 | 31 | 36 | 39 | 186 | 346 | 37 | 14 | 19 |
| 7 | 24 | 45 | 34 | 25 | 41 | 41 | 36 | 588 | 350 | 32 | 13 | 18 |
| 8 | 22 | 42 | 34 | 26 | 45 | 40 | 35 | 652 | 365 | 36 | 13 | 21 |
| 9 | 22 | 38 | 33 | 26 | 34 | 35 | 40 | 445 | 492 | 28 | 13 | 23 |
| 10 | 22 | 35 | 34 | 30 | 37 | 35 | 44 | 271 | 488 | 26 | 13 | 26 |
| 11 | 22 | 33 | 34 | 27 | 39 | 37 | 44 | 249 | 478 | 25 | 13 | 32 |
| 12 | 20 | 32 | 31 | 48 | 39 | 36 | 42 | 240 | 477 | 25 | 12 | 29 |
| 13 | 22 | 32 | 33 | 49 | 43 | 34 | 47 | 175 | 451 | 26 | 15 | 30 |
| 14 | 27 | 35 | 37 | 43 | 45 | 34 | 58 | 167 | 392 | 27 | 17 | 29 |
| 15 | 27 | 35 | 37 | 38 | 49 | 36 | 70 | 135 | 331 | 28 | 18 | 27 |
| 16 | 28 | 35 | 34 | 32 | 46 | 33 | 90 | 137 | 277 | 23 | 17 | 28 |
| 17 | 29 | 36 | 33 | 31 | 44 | 32 | 110 | 361 | 223 | 19 | 17 | 28 |
| 18 | 28 | 41 | 33 | 30 | 48 | 34 | 130 | 221 | 179 | 19 | 17 | 28 |
| 19 | 30 | 42 | 33 | 29 | 48 | 33 | 170 | 240 | 159 | 18 | 18 | 28 |
| 20 | 31 | 43 | 31 | 28 | 42 | 33 | 230 | 337 | 131 | 18 | 17 | 27 |
| 21 | 41 | 37 | 29 | 25 | 44 | 36 | 270 | 435 | 113 | 17 | 15 | 28 |
| 22 | 42 | 34 | 31 | 26 | 46 | 42 | 240 | 604 | 94 | 14 | 16 | 28 |
| 23 | 50 | 34 | 29 | 25 | 41 | 38 | 180 | 680 | 76 | 13 | 18 | 30 |
| 24 | 51 | 36 | 27 | 24 | 37 | 36 | 143 | 624 | 56 | 15 | 29 | 32 |
| 25 | 51 | 40 | 28 | 26 | 37 | 40 | 107 | 406 | 45 | 17 | 28 | 31 |
| 26 | 50 | 40 | 28 | 28 | 41 | 38 | 167 | 342 | 36 | 15 | 24 | 33 |
| 27 | 48 | 37 | 29 | 27 | 39 | 36 | 180 | 333 | 34 | 13 | 20 | 33 |
| 28 | 49 | 32 | 28 | 22 | 40 | 34 | 201 | 366 | 30 | 13 | 20 | 30 |
| 29 | 49 | 37 | 27 | 32 | 37 | 33 | 185 | 378 | 31 | 12 | 20 | 30 |
| 30 | 47 | 39 | 27 | 38 | --- | 34 | 289 | 342 | 30 | 13 | 21 | 30 |
| 31 | 45 | --- | 25 | 32 | --- | 34 | --- | 346 | --- | 14 | 22 | --- |
| TOTAL | 1004 | 1163 | 1004 | 921 | 1146 | 1102 | 3321 | 10014 | 7148 | 832 | 539 | 787 |
| MEAN | 32.4 | 38.8 | 32.4 | 29.7 | 39.5 | 35.5 | 111 | 323 | 238 | 26.8 | 17.4 | 26.2 |
| MAX | 51 | 50 | 40 | 49 | 49 | 42 | 289 | 680 | 492 | 82 | 29 | 33 |
| MIN | 19 | 32 | 25 | 22 | 27 | 32 | 33 | 116 | 30 | 12 | 12 | 16 |
| AC-FT | 1990 | 2310 | 1990 | 1830 | 2270 | 2190 | 6590 | 19860 | 14180 | 1650 | 1070 | 1560 |

CAL YR 1979 TOTAL 21162.7 MEAN 58.0 MAX 442 MIN 8.1 AC-FT 41980
WTR YR 1980 TOTAL 28981.0 MEAN 79.2 MAX 680 MIN 12 AC-FT 57480

NOTE.--NO GAGE-HEIGHT RECORD MAR. 21 TO APR. 23.

## 09144250 GUNNISON RIVER AT DELTA, CO

LOCATION.--Lat 38°45'01", long 108°04'06", in SE¼NE¼ sec.13, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020005, on left bank near upstream side of U.S. Highway 50 bridge at north edge of Delta.

DRAINAGE AREA.--5,628 mi² (14,577 km²).

PERIOD OF RECORD.--May 1976 to current year. Gage-height records collected at this site 1912-77 (flood seasons only) are in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 4,919.97 ft (1,499.607 m) National Weather Service Datum (levels by National Weather Service). Prior to May 1976 nonrecording gage at present site and datum.

REMARKS.--Records poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, and many diversions for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,100 ft³/s (343 m³/s) May 24, 1980; minimum daily, 208 ft³/s (5.89 m³/s) Aug. 11, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height observed, 13.5 ft (4.11 m) June 6, 1957, from National Weather Service wire-weight gage at same datum (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 12,100 ft³/s (343 m³/s) May 24; minimum daily, 656 ft³/s (18.6 m³/s) Nov. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1490 | 750 | 1620 | 2040 | 2000 | 2000 | 2200 | 6600 | 6840 | 3760 | 1030 | 1120 |
| 2 | 1480 | 1360 | 2000 | 2060 | 2000 | 2000 | 2200 | 6200 | 6450 | 3840 | 1040 | 1020 |
| 3 | 1460 | 867 | 2120 | 2060 | 2050 | 2000 | 2100 | 6200 | 6260 | 3750 | 1030 | 910 |
| 4 | 1080 | 656 | 2120 | 2060 | 2000 | 2000 | 2000 | 6400 | 5420 | 3530 | 1010 | 910 |
| 5 | 1310 | 663 | 2170 | 2050 | 2100 | 2000 | 2100 | 6600 | 6810 | 3350 | 1240 | 900 |
| 6 | 1010 | 656 | 2120 | 2080 | 2050 | 2000 | 2300 | 6900 | 7150 | 3140 | 1380 | 875 |
| 7 | 1480 | 678 | 2080 | 2070 | 2050 | 2200 | 2300 | 7200 | 6620 | 3000 | 1420 | 885 |
| 8 | 1430 | 1370 | 2100 | 2060 | 2050 | 2200 | 2200 | 7300 | 6380 | 2650 | 1150 | 900 |
| 9 | 1430 | 1580 | 2100 | 2080 | 2000 | 2200 | 2100 | 7400 | 6660 | 2530 | 1120 | 910 |
| 10 | 1280 | 1580 | 2100 | 2120 | 2000 | 2200 | 2000 | 7000 | 7040 | 1970 | 1090 | 985 |
| 11 | 813 | 1720 | 2080 | 2140 | 2000 | 2100 | 1600 | 7250 | 7770 | 1800 | 1040 | 1080 |
| 12 | 813 | 1850 | 2000 | 2160 | 2000 | 2100 | 2100 | 7640 | 8260 | 1540 | 961 | 1060 |
| 13 | 1230 | 1730 | 2000 | 2300 | 2000 | 2230 | 2200 | 7310 | 7950 | 1620 | 1040 | 1230 |
| 14 | 1370 | 876 | 2000 | 2200 | 2000 | 2230 | 2400 | 7310 | 7550 | 1590 | 1050 | 1220 |
| 15 | 1480 | 840 | 2020 | 2200 | 2100 | 2250 | 2700 | 7160 | 7070 | 1440 | 1160 | 1390 |
| 16 | 1460 | 837 | 2020 | 1800 | 2100 | 2360 | 2700 | 7720 | 6590 | 1320 | 1210 | 1510 |
| 17 | 694 | 843 | 2020 | 1350 | 2000 | 2320 | 2700 | 9000 | 6280 | 1240 | 1140 | 1500 |
| 18 | 694 | 880 | 2040 | 1700 | 2100 | 2320 | 2800 | 8080 | 6140 | 1190 | 1110 | 1200 |
| 19 | 710 | 929 | 2040 | 2150 | 2200 | 2360 | 3100 | 8250 | 6100 | 1150 | 1050 | 1160 |
| 20 | 726 | 933 | 2020 | 2100 | 2150 | 2320 | 4600 | 8760 | 5420 | 1160 | 1040 | 1150 |
| 21 | 894 | 890 | 2040 | 2100 | 2100 | 2360 | 5000 | 10200 | 5090 | 1140 | 1000 | 1160 |
| 22 | 858 | 860 | 2040 | 2000 | 2100 | 2360 | 5200 | 11000 | 4810 | 1080 | 946 | 1170 |
| 23 | 993 | 850 | 2020 | 1900 | 2100 | 2390 | 5600 | 11500 | 4650 | 1020 | 1080 | 1190 |
| 24 | 777 | 860 | 2020 | 2000 | 2000 | 2190 | 5800 | 11900 | 4160 | 1020 | 1120 | 1190 |
| 25 | 759 | 890 | 2040 | 2100 | 2000 | 2330 | 5200 | 10600 | 3960 | 1030 | 1230 | 1170 |
| 26 | 734 | 900 | 2040 | 2000 | 2050 | 2210 | 5300 | 9550 | 3850 | 1060 | 1500 | 1190 |
| 27 | 710 | 890 | 2080 | 2100 | 2000 | 1820 | 5200 | 9140 | 3830 | 1070 | 1420 | 1130 |
| 28 | 694 | 920 | 2020 | 2000 | 2000 | 2170 | 5300 | 8610 | 3630 | 1020 | 1170 | 1120 |
| 29 | 710 | 1660 | 2040 | 2000 | 2000 | 2150 | 5300 | 8540 | 3370 | 1020 | 1160 | 1170 |
| 30 | 718 | 1690 | 2040 | 2000 | --- | 2360 | 6400 | 7310 | 3370 | 1010 | 1120 | 1170 |
| 31 | 742 | --- | 2050 | 2000 | --- | 2330 | --- | 6800 | --- | 1010 | 1130 | --- |
| TOTAL | 32029 | 32008 | 63200 | 62980 | 59300 | 68060 | 102700 | 251430 | 175480 | 57050 | 35187 | 33575 |
| MEAN | 1033 | 1067 | 2039 | 2032 | 2045 | 2195 | 3423 | 8111 | 5849 | 1840 | 1135 | 1119 |
| MAX | 1490 | 1850 | 2170 | 2300 | 2200 | 2390 | 6400 | 11900 | 8260 | 3840 | 1500 | 1510 |
| MIN | 694 | 656 | 1620 | 1350 | 2000 | 1820 | 1600 | 6200 | 3370 | 1010 | 946 | 875 |
| AC-FT | 63530 | 63490 | 125400 | 124900 | 117600 | 135000 | 203700 | 498700 | 348100 | 113200 | 69790 | 66600 |

CAL YR 1979 TOTAL 883857 MEAN 2422 MAX 9230 MIN 656 AC-FT 1753000
WTR YR 1980 TOTAL 972999 MEAN 2658 MAX 11900 MIN 656 AC-FT 1930000

NOTE.--NO GAGE-HEIGHT RECORD NOV. 21 TO DEC. 26, JAN. 13 TO MAR. 29, APR. 1 TO MAY 30, AUG. 23 TO SEPT. 30.

## 09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO

LOCATION.--Lat 38°11'02", long 107°44'43", in SW¼NE¼ sec.4, T.45 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 15 ft (5 m) upstream from bridge, 0.2 mi (0.3 km) downstream from Dry Creek, 0.5 mi (0.8 km) upstream from Dallas Creek, and 2.3 mi (3.7 km) north of Ridgway.

DRAINAGE AREA.--149 mi² (386 km²).

PERIOD OF RECORD.--October 1958 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,877.58 ft (2,096.286 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good. Diversions for irrigation above station. Water is imported above station in some years by Red Mountain ditch from Mineral Creek in San Juan River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--22 years, 157 ft³/s (4.446 m³/s), 113,700 acre-ft/yr (140 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft³/s (53.5 m³/s) Sept. 6, 1970, gage height, 5.38 ft (1.640 m); minimum daily, 26 ft³/s (0.74 m³/s) Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,170 ft³/s (33.1 m³/s) at 0100 June 11, gage height, 4.70 ft (1.433 m), only peak above base of 1,000 ft³/s (28 m); minimum daily, 35 ft³/s (0.99 m³/s) Feb. 12, Mar. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 61 | 72 | 50 | 43 | 40 | 42 | 41 | 161 | 390 | 525 | 124 | 78 |
| 2 | 64 | 70 | 48 | 44 | 40 | 41 | 42 | 128 | 362 | 466 | 124 | 78 |
| 3 | 63 | 67 | 52 | 43 | 42 | 40 | 44 | 116 | 402 | 430 | 118 | 75 |
| 4 | 60 | 70 | 56 | 44 | 49 | 41 | 46 | 139 | 454 | 406 | 112 | 72 |
| 5 | 60 | 65 | 59 | 43 | 43 | 39 | 47 | 141 | 525 | 374 | 108 | 75 |
| 6 | 59 | 65 | 58 | 43 | 41 | 39 | 47 | 143 | 555 | 346 | 114 | 75 |
| 7 | 58 | 70 | 58 | 43 | 41 | 40 | 46 | 186 | 515 | 350 | 126 | 78 |
| 8 | 59 | 72 | 60 | 43 | 40 | 39 | 44 | 210 | 520 | 362 | 134 | 78 |
| 9 | 58 | 75 | 60 | 43 | 36 | 39 | 44 | 210 | 710 | 315 | 130 | 77 |
| 10 | 56 | 75 | 60 | 43 | 36 | 37 | 46 | 176 | 800 | 300 | 118 | 80 |
| 11 | 56 | 74 | 58 | 43 | 36 | 38 | 47 | 190 | 1010 | 288 | 114 | 81 |
| 12 | 56 | 74 | 55 | 44 | 35 | 38 | 46 | 154 | 1010 | 306 | 114 | 74 |
| 13 | 55 | 74 | 51 | 48 | 37 | 35 | 44 | 128 | 902 | 332 | 116 | 71 |
| 14 | 56 | 72 | 49 | 48 | 37 | 36 | 46 | 120 | 746 | 300 | 120 | 70 |
| 15 | 59 | 70 | 51 | 49 | 44 | 38 | 50 | 110 | 630 | 273 | 145 | 70 |
| 16 | 58 | 67 | 51 | 48 | 46 | 39 | 59 | 94 | 605 | 258 | 122 | 67 |
| 17 | 56 | 68 | 51 | 47 | 43 | 38 | 70 | 101 | 595 | 243 | 114 | 64 |
| 18 | 58 | 68 | 51 | 46 | 69 | 40 | 98 | 91 | 640 | 218 | 108 | 64 |
| 19 | 58 | 65 | 51 | 46 | 71 | 43 | 142 | 105 | 635 | 205 | 105 | 63 |
| 20 | 61 | 67 | 52 | 46 | 51 | 42 | 162 | 178 | 595 | 198 | 101 | 60 |
| 21 | 83 | 67 | 52 | 42 | 48 | 43 | 161 | 294 | 535 | 186 | 96 | 56 |
| 22 | 74 | 65 | 51 | 42 | 47 | 44 | 190 | 414 | 530 | 169 | 92 | 47 |
| 23 | 81 | 61 | 51 | 40 | 46 | 44 | 178 | 446 | 580 | 161 | 94 | 48 |
| 24 | 81 | 61 | 49 | 40 | 44 | 44 | 136 | 378 | 600 | 165 | 114 | 49 |
| 25 | 75 | 64 | 49 | 41 | 42 | 46 | 105 | 267 | 610 | 158 | 134 | 50 |
| 26 | 72 | 65 | 49 | 42 | 42 | 42 | 98 | 246 | 655 | 154 | 120 | 54 |
| 27 | 68 | 64 | 48 | 42 | 42 | 43 | 91 | 270 | 665 | 141 | 101 | 56 |
| 28 | 70 | 60 | 48 | 42 | 43 | 42 | 103 | 312 | 575 | 134 | 96 | 56 |
| 29 | 71 | 60 | 47 | 42 | 44 | 42 | 136 | 350 | 506 | 124 | 92 | 56 |
| 30 | 74 | 55 | 44 | 43 | --- | 41 | 172 | 370 | 510 | 124 | 88 | 58 |
| 31 | 75 | --- | 44 | 40 | --- | 43 | --- | 386 | --- | 120 | 83 | --- |
| TOTAL | 1995 | 2022 | 1613 | 1353 | 1275 | 1258 | 2581 | 6614 | 18367 | 8131 | 3477 | 1980 |
| MEAN | 64.4 | 67.4 | 52.0 | 43.6 | 44.0 | 40.6 | 86.0 | 213 | 612 | 262 | 112 | 66.0 |
| MAX | 83 | 75 | 60 | 49 | 71 | 46 | 190 | 446 | 1010 | 525 | 145 | 81 |
| MIN | 55 | 55 | 44 | 40 | 35 | 35 | 41 | 91 | 362 | 120 | 83 | 47 |
| AC-FT | 3960 | 4010 | 3200 | 2680 | 2530 | 2500 | 5120 | 13120 | 36430 | 16130 | 6900 | 3930 |

CAL YR 1979 TOTAL 73117 MEAN 200 MAX 1290 MIN 34 AC-FT 145000
WTR YR 1980 TOTAL 50666 MEAN 138 MAX 1010 MIN 35 AC-FT 100500

## 09147000 DALLAS CREEK NEAR RIDGWAY, CO

LOCATION.--Lat 38°10'40", long 107°45'28", on line between sec.4 and 5, T.45 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 25 ft (7.62 m) downstream from county bridge, 1.5 mi (2.4 km) upstream from mouth, and 15 mi (2.4 km) northwest of Ridgway.

DRAINAGE AREA.--96.2 mi² (249.2 km²).

PERIOD OF RECORD.--March 1922 to October 1927, October 1955 to September 1971, October 1979 to September 1980.

REVISED RECORDS.--WSP 1924: 1960: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,980 ft (2,128 m), from topographic map. Mar. 1, 1922 to Oct. 31, 1927, nonrecording gage at different datum.

REMARKS.--Records fair except those for period of no gage-height record and those for winter period, which are poor. Diversions above station for irrigation of about 4,500 acres (18.2 km²) above and 700 acres (2.83 km²) below station. One small ditch imports water from Leopard Creek (Dolores River basin) to drainage above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--22 years, 37.0 ft³/s (1.048 m³/s), 26,810 acre-ft/yr (33.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,120 ft³/s (31.7 m³/s) Aug. 15, 1923, gage height, 4.40 ft (1.341 m) datum then in use, from rating curve extended above 160 ft³/s (4.53 m³/s); maximum gage height, 5.14 ft (1.567 m) Jan. 31, 1963 (backwater from ice); minimum daily discharge, 0.50 ft³/s (0.014 m³/s) June 17, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; minimum daily, 4.5 ft³/s (0.13 m³/s) June 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.6 | 18 | 13 | 12 | 4.8 | 15 | 18 | 90 | 15 | 69 | 24 | 19 |
| 2 | 8.0 | 19 | 10 | 13 | 5.4 | 15 | 16 | 74 | 12 | 74 | 24 | 20 |
| 3 | 8.0 | 22 | 12 | 11 | 12 | 15 | 17 | 62 | 9.0 | 88 | 15 | 18 |
| 4 | 7.8 | 23 | 13 | 13 | 11 | 15 | 17 | 74 | 4.7 | 86 | 15 | 18 |
| 5 | 7.6 | 24 | 13 | 12 | 11 | 15 | 17 | 79 | 4.4 | 80 | 14 | 18 |
| 6 | 6.8 | 24 | 13 | 11 | 11 | 15 | 17 | 82 | 6.8 | 76 | 13 | 17 |
| 7 | 7.4 | 24 | 14 | 10 | 11 | 15 | 17 | 90 | 14 | 76 | 10 | 18 |
| 8 | 7.4 | 24 | 15 | 10 | 11 | 15 | 14 | 120 | 11 | 80 | 9.4 | 20 |
| 9 | 7.1 | 25 | 15 | 10 | 10 | 14 | 15 | 120 | 21 | 75 | 25 | 27 |
| 10 | 7.1 | 24 | 15 | 11 | 12 | 14 | 17 | 100 | 30 | 70 | 25 | 34 |
| 11 | 7.4 | 20 | 15 | 11 | 13 | 14 | 17 | 110 | 41 | 67 | 24 | 38 |
| 12 | 7.4 | 21 | 15 | 13 | 12 | 14 | 14 | 98 | 50 | 82 | 30 | 32 |
| 13 | 7.8 | 21 | 14 | 13 | 14 | 13 | 15 | 80 | 54 | 78 | 42 | 37 |
| 14 | 8.2 | 23 | 14 | 14 | 15 | 15 | 17 | 70 | 54 | 60 | 39 | 27 |
| 15 | 9.4 | 24 | 14 | 13 | 20 | 14 | 21 | 62 | 37 | 37 | 60 | 22 |
| 16 | 9.8 | 25 | 15 | 12 | 21 | 14 | 22 | 60 | 41 | 46 | 58 | 24 |
| 17 | 10 | 24 | 15 | 9.4 | 15 | 18 | 25 | 66 | 34 | 47 | 47 | 26 |
| 18 | 11 | 24 | 15 | 9.0 | 24 | 19 | 28 | 64 | 53 | 22 | 33 | 26 |
| 19 | 12 | 23 | 15 | 8.8 | 31 | 16 | 36 | 80 | 67 | 29 | 28 | 23 |
| 20 | 12 | 24 | 15 | 8.0 | 20 | 15 | 44 | 100 | 76 | 39 | 29 | 13 |
| 21 | 19 | 22 | 16 | 7.2 | 17 | 15 | 64 | 140 | 60 | 14 | 32 | 13 |
| 22 | 18 | 21 | 15 | 6.4 | 16 | 14 | 103 | 160 | 64 | 17 | 34 | 15 |
| 23 | 19 | 20 | 15 | 6.4 | 15 | 14 | 135 | 170 | 76 | 34 | 36 | 15 |
| 24 | 19 | 20 | 14 | 6.8 | 16 | 15 | 110 | 170 | 78 | 34 | 51 | 17 |
| 25 | 19 | 21 | 15 | 6.8 | 16 | 15 | 96 | 130 | 86 | 15 | 79 | 15 |
| 26 | 18 | 21 | 14 | 6.8 | 15 | 15 | 58 | 35 | 100 | 17 | 61 | 13 |
| 27 | 18 | 21 | 13 | 7.0 | 15 | 15 | 50 | 25 | 120 | 28 | 62 | 12 |
| 28 | 19 | 20 | 14 | 7.0 | 16 | 14 | 56 | 23 | 120 | 17 | 48 | 12 |
| 29 | 19 | 19 | 13 | 7.4 | 16 | 14 | 71 | 21 | 80 | 27 | 31 | 11 |
| 30 | 20 | 17 | 13 | 7.0 | --- | 14 | 110 | 23 | 70 | 27 | 23 | 11 |
| 31 | 18 | --- | 13 | 4.8 | --- | 13 | --- | 21 | --- | 15 | 21 | --- |
| TOTAL | 375.8 | 658 | 435 | 297.8 | 426.2 | 458 | 1257 | 2599 | 1488.9 | 1526 | 1042.4 | 611 |
| MEAN | 12.1 | 21.9 | 14.0 | 9.61 | 14.7 | 14.8 | 41.9 | 83.8 | 49.6 | 49.2 | 33.6 | 20.4 |
| MAX | 20 | 25 | 16 | 14 | 31 | 19 | 135 | 170 | 120 | 88 | 79 | 38 |
| MIN | 6.8 | 17 | 10 | 4.8 | 4.8 | 13 | 14 | 21 | 4.4 | 14 | 9.4 | 11 |
| AC-FT | 745 | 1310 | 863 | 591 | 845 | 908 | 2490 | 5160 | 2950 | 3030 | 2070 | 1210 |

WTR YR 1980 TOTAL 11175.1 MEAN 30.5 MAX 170 MIN 4.4 AC-FT 22170

NOTE.--NO GAGE-HEIGHT RECORD APR. 22 TO MAY 29.

## 09147500 UNCOMPAHGRE RIVER AT COLONA, CO

LOCATION.--Lat 38°19'53", long 107°46'44", in NW¼NW¼ sec.17, T.47 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 15 ft (5 m) downstream from county highway bridge, 0.2 mi (0.3 km) north of Colona, and 1.0 mi (1.6 km) upstream from Beaton Creek.

DRAINAGE AREA.--443 mi² (1,147 km²).

PERIOD OF RECORD.--April 1903 to November 1905, April to June 1906 (gage heights and discharge measurements only), October 1912 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Colona" 1904-6, 1922-34.

REVISED RECORDS.--WSP 1313: 1904. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,318.80 ft (1,925.970 m), National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Sept. 30, 1949.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. Natural flow of stream affected by water diverted from West Fork Cimarron Creek, Mineral Creek (San Juan River basin), and Leopard Creek (Dolores River basin), diversions for irrigation of about 19,000 acres or 76.9 km² (part of which is below station), and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--70 years (water years 1904-5, 1913-80), 263 ft³/s (7.448 m³/s), 190,500 acre-ft/yr (235 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,080 ft³/s (116 m³/s) June 13, 14, 1921; minimum daily, 12 ft³/s (0.34 m³/s) Sept. 19, 1956, May 7, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,640 ft³/s (46.4 m³/s) June 11, gage height, 4.20 ft (1.280 m); minimum daily, 41 ft³/s (1.161 m³/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 43 | 107 | 96 | 82 | 70 | 79 | 61 | 269 | 492 | 709 | 114 | 71 |
| 2 | 46 | 109 | 96 | 84 | 76 | 77 | 73 | 208 | 374 | 654 | 132 | 66 |
| 3 | 46 | 109 | 100 | 82 | 82 | 76 | 71 | 167 | 418 | 613 | 135 | 61 |
| 4 | 41 | 120 | 110 | 85 | 89 | 76 | 74 | 197 | 517 | 580 | 134 | 58 |
| 5 | 44 | 115 | 110 | 82 | 82 | 76 | 80 | 229 | 695 | 512 | 128 | 52 |
| 6 | 46 | 110 | 110 | 83 | 80 | 76 | 75 | 237 | 791 | 451 | 127 | 47 |
| 7 | 45 | 119 | 110 | 84 | 78 | 77 | 73 | 362 | 607 | 441 | 130 | 50 |
| 8 | 45 | 120 | 115 | 84 | 72 | 75 | 66 | 394 | 548 | 478 | 127 | 53 |
| 9 | 44 | 130 | 115 | 82 | 72 | 76 | 72 | 380 | 859 | 421 | 151 | 56 |
| 10 | 46 | 122 | 110 | 84 | 72 | 72 | 73 | 287 | 960 | 386 | 140 | 59 |
| 11 | 47 | 110 | 100 | 86 | 73 | 77 | 72 | 331 | 1100 | 351 | 125 | 66 |
| 12 | 46 | 112 | 100 | 88 | 72 | 78 | 66 | 320 | 1100 | 391 | 132 | 58 |
| 13 | 44 | 103 | 98 | 92 | 74 | 68 | 66 | 257 | 1070 | 418 | 136 | 57 |
| 14 | 46 | 103 | 96 | 94 | 77 | 73 | 68 | 217 | 1020 | 395 | 142 | 54 |
| 15 | 50 | 98 | 98 | 96 | 80 | 74 | 85 | 203 | 884 | 329 | 189 | 52 |
| 16 | 47 | 99 | 98 | 92 | 92 | 73 | 97 | 168 | 831 | 312 | 171 | 50 |
| 17 | 47 | 104 | 96 | 90 | 82 | 67 | 119 | 203 | 838 | 294 | 151 | 49 |
| 18 | 47 | 114 | 95 | 90 | 108 | 75 | 159 | 185 | 909 | 266 | 137 | 49 |
| 19 | 50 | 105 | 95 | 90 | 170 | 81 | 204 | 208 | 963 | 236 | 120 | 48 |
| 20 | 60 | 106 | 95 | 84 | 99 | 77 | 279 | 325 | 899 | 229 | 108 | 49 |
| 21 | 96 | 104 | 95 | 82 | 79 | 78 | 323 | 593 | 821 | 213 | 100 | 49 |
| 22 | 84 | 97 | 96 | 80 | 77 | 79 | 401 | 975 | 821 | 186 | 94 | 49 |
| 23 | 110 | 98 | 96 | 80 | 77 | 78 | 358 | 1160 | 862 | 171 | 93 | 50 |
| 24 | 110 | 96 | 96 | 78 | 75 | 73 | 262 | 996 | 907 | 166 | 119 | 52 |
| 25 | 110 | 107 | 96 | 80 | 71 | 78 | 154 | 526 | 891 | 162 | 205 | 52 |
| 26 | 102 | 106 | 94 | 80 | 74 | 72 | 168 | 441 | 918 | 158 | 175 | 52 |
| 27 | 99 | 105 | 94 | 82 | 78 | 77 | 154 | 437 | 917 | 145 | 147 | 52 |
| 28 | 99 | 104 | 94 | 82 | 82 | 73 | 168 | 484 | 812 | 136 | 114 | 53 |
| 29 | 108 | 111 | 90 | 86 | 85 | 73 | 199 | 518 | 706 | 127 | 96 | 53 |
| 30 | 118 | 98 | 88 | 69 | --- | 69 | 271 | 498 | 683 | 122 | 83 | 53 |
| 31 | 113 | --- | 84 | 61 | --- | 73 | --- | 530 | --- | 116 | 75 | --- |
| TOTAL | 2079 | 3241 | 3066 | 2594 | 2398 | 2326 | 4391 | 12305 | 24213 | 10168 | 4030 | 1620 |
| MEAN | 67.1 | 108 | 98.9 | 83.7 | 82.7 | 75.0 | 146 | 397 | 807 | 328 | 130 | 54.0 |
| MAX | 118 | 130 | 115 | 96 | 170 | 81 | 401 | 1160 | 1100 | 709 | 205 | 71 |
| MIN | 41 | 96 | 84 | 61 | 70 | 67 | 61 | 167 | 374 | 116 | 75 | 47 |
| AC-FT | 4120 | 6430 | 6080 | 5150 | 4760 | 4610 | 8710 | 24410 | 48030 | 20170 | 7990 | 3210 |

CAL YR 1979 TOTAL 113762 MEAN 312 MAX 1640 MIN 41 AC-FT 225600
WTR YR 1980 TOTAL 72431 MEAN 198 MAX 1160 MIN 41 AC-FT 143700

NOTE.--NO GAGE-HEIGHT RECORD NOV. 30 TO FEB. 13, JUNE 10-12.

## 09149400 SPRING CREEK NEAR BEAVER HILL, CO

LOCATION.--Lat 38°23'32", long 107°56'40", in NW¼NW¼ sec.26, T.48 N., R.10 W., Montrose County, Hydrologic Unit 14020006, on left bank 7.2 mi (11.6 km) southwest of Montrose.

DRAINAGE AREA.--41.6 mi² (107.7 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,570 ft (1,698 m), from topographic map. Prior to Nov. 23, 1977, nonrecording gage at same site and datum.

REMARKS.--Records good.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 275 ft³/s (7.79 m³/s) May 23, 1980, gage height, 3.30 ft (1.006 m); no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 275 ft³/s (7.79 m³/s) at 2300 May 23, gage height, 3.30 ft (1.006 m), only peak above base of 100 ft³/s (2.83 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .18 | .40 | .50 | .80 | .72 | 75 | 119 | 4.7 | .00 | .00 |
| 2 | .00 | .00 | .24 | .44 | .50 | .75 | .95 | 69 | 105 | 5.9 | .00 | .00 |
| 3 | .00 | .00 | .24 | .46 | .50 | .71 | .80 | 66 | 98 | 3.8 | .00 | .00 |
| 4 | .00 | .02 | .25 | .47 | .59 | .73 | .69 | 73 | 97 | 2.6 | .00 | .00 |
| 5 | .00 | .05 | .31 | .46 | .59 | .70 | 1.1 | 86 | 91 | 2.1 | .00 | .00 |
| 6 | .00 | .09 | .36 | .49 | .59 | .75 | 1.8 | 97 | 81 | 1.8 | .00 | .00 |
| 7 | .00 | .12 | .29 | .77 | .59 | .78 | 1.7 | 110 | 73 | 1.8 | .00 | .00 |
| 8 | .00 | .22 | .26 | .57 | .50 | .61 | .89 | 129 | 66 | 2.3 | .00 | .00 |
| 9 | .00 | .42 | .29 | .48 | .50 | .63 | 1.1 | 152 | 59 | 1.9 | .00 | .00 |
| 10 | .00 | .36 | .30 | .69 | .50 | .65 | 1.6 | 149 | 54 | 1.5 | .00 | .00 |
| 11 | .00 | .26 | .29 | .66 | .60 | .70 | 2.3 | 171 | 48 | 1.3 | .00 | .00 |
| 12 | .00 | .22 | .28 | .53 | .60 | .66 | 1.3 | 185 | 43 | 1.3 | .00 | .00 |
| 13 | .00 | .19 | .25 | .72 | .61 | .49 | 1.3 | 132 | 39 | 2.6 | .00 | .00 |
| 14 | .00 | .21 | .18 | 1.1 | .70 | .55 | 1.7 | 117 | 33 | 2.0 | .00 | .00 |
| 15 | .00 | .21 | .16 | 1.0 | 1.7 | .93 | 3.4 | 122 | 28 | 1.2 | .00 | .00 |
| 16 | .00 | .21 | .16 | 1.3 | 2.0 | .86 | 3.5 | 119 | 24 | .83 | .00 | .00 |
| 17 | .00 | .24 | .15 | 1.2 | 2.1 | .57 | 5.0 | 141 | 21 | .53 | .00 | .00 |
| 18 | .00 | .36 | .16 | .86 | 1.7 | .69 | 7.6 | 128 | 16 | .35 | .00 | .00 |
| 19 | .00 | .43 | .20 | .68 | 4.0 | .86 | 12 | 135 | 15 | .27 | .00 | .00 |
| 20 | .00 | .49 | .20 | .66 | 3.2 | .83 | 17 | 141 | 13 | .22 | .00 | .00 |
| 21 | .00 | .48 | .20 | .60 | 1.2 | 1.1 | 24 | 151 | 12 | .15 | .00 | .00 |
| 22 | .00 | .42 | .20 | .60 | 1.0 | 1.4 | 39 | 185 | 10 | .11 | .00 | .00 |
| 23 | .00 | .38 | .20 | .50 | .77 | 1.2 | 43 | 235 | 8.7 | .08 | .00 | .00 |
| 24 | .00 | .35 | .30 | .50 | .71 | .87 | 38 | 225 | 7.5 | .13 | .00 | .00 |
| 25 | .00 | .39 | .30 | .50 | .69 | 1.1 | 30 | 197 | 6.3 | .09 | .00 | .00 |
| 26 | .00 | .39 | .30 | .50 | .71 | .77 | 32 | 167 | 5.0 | .09 | .00 | .00 |
| 27 | .00 | .45 | .30 | .58 | .76 | .96 | 34 | 146 | 4.7 | .14 | .00 | .00 |
| 28 | .00 | .27 | .30 | .53 | 1.0 | .92 | 40 | 139 | 3.9 | .07 | .00 | .00 |
| 29 | .00 | .23 | .40 | .57 | .98 | .75 | 50 | 148 | 3.4 | .03 | .00 | .00 |
| 30 | .00 | .19 | .40 | .50 | --- | .74 | 63 | 141 | 3.2 | .02 | .00 | .00 |
| 31 | .00 | --- | .40 | .50 | --- | .89 | --- | 132 | --- | .01 | .00 | --- |
| TOTAL | .00 | 7.65 | 8.05 | 19.82 | 30.39 | 24.95 | 459.45 | 4263 | 1187.7 | 39.92 | .00 | .00 |
| MEAN | .000 | .26 | .26 | .64 | 1.05 | .80 | 15.3 | 138 | 39.6 | 1.29 | .000 | .000 |
| MAX | .00 | .49 | .40 | 1.3 | 4.0 | 1.4 | 63 | 235 | 119 | 5.9 | .00 | .00 |
| MIN | .00 | .00 | .15 | .40 | .50 | .49 | .69 | 66 | 3.2 | .01 | .00 | .00 |
| AC-FT | .00 | 15 | 16 | 39 | 60 | 49 | 911 | 8460 | 2360 | 79 | .00 | .00 |

CAL YR 1979 TOTAL 6379.61 MEAN 17.5 MAX 227 MIN .00 AC-FT 12650
WTR YR 1980 TOTAL 6040.93 MEAN 16.5 MAX 235 MIN .00 AC-FT 11980

## 09149400 SPRING CREEK NEAR BEAVER HILL, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1977 to current year.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | TURBIDITY (NTU) | OXYGEN, DISSOLVED (MG/L) | OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) | COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) | HARDNESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 19... | 1445 | 5.6 | 393 | 7.4 | 5.0 | -- | 9.2 | 23 | <1 | 140 |
| MAR 24... | 1200 | .40 | 590 | 7.5 | 6.0 | 1.9 | 9.2 | 7 | <1 | 220 |
| MAY 05... | 1130 | 72 | 120 | 7.1 | 8.5 | -- | -- | 33 | <5 | 54 |
| JUN 09... | 1100 | 78 | 80 | 6.9 | 9.5 | -- | 8.6 | 30 | K12 | 46 |

| DATE | HARDNESS, NONCARBONATE (MG/L CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|
| FEB 19... | 32 | 42 | 9.0 | 22 | .8 | 2.6 | 110 | 81 | 5.3 |
| MAR 24... | 57 | 65 | 13 | 45 | 1.4 | 3.2 | 160 | 160 | 5.3 |
| MAY 05... | 11 | 15 | 4.1 | 4.9 | .3 | 1.6 | 43 | 12 | 1.5 |
| JUN 09... | 22 | 14 | 2.7 | 2.3 | .1 | 1.2 | 24 | 29 | 2.3 |

| DATE | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|
| FEB 19... | .2 | 9.0 | 256 | 238 | .35 | 3.87 | .06 | .010 | .16 |
| MAR 24... | .3 | 5.5 | 405 | -- | .55 | .44 | .06 | .030 | .33 |
| MAY 05... | .1 | 7.4 | 94 | 73 | .13 | 18.3 | .08 | .010 | 5.2 |
| JUN 09... | .1 | 5.7 | 66 | 72 | .09 | 13.9 | .02 | .030 | .43 |

| DATE | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, TOTAL (MG/L AS N) | PHOSPHORUS, TOTAL (MG/L AS P) | PHOSPHORUS, DISSOLVED (MG/L AS P) | BORON, DISSOLVED (UG/L AS B) | IRON, DISSOLVED (UG/L AS FE) | CARBON, ORGANIC DISSOLVED (MG/L AS C) | CARBON, ORGANIC SUSPENDED (MG/L AS C) | PHYTOPLANKTON, TOTAL (CELLS PER ML) |
|---|---|---|---|---|---|---|---|---|---|
| FEB 19... | .17 | .23 | .020 | .000 | 70 | 440 | 14 | 1.4 | 610 |
| MAR 24... | .36 | .42 | .010 | .010 | 90 | 13 | 6.0 | .8 | 26 |
| MAY 05... | 5.2 | 5.3 | .040 | .020 | 20 | 240 | 27 | .7 | -- |
| JUN 09... | .46 | .48 | .010 | .010 | 50 | 150 | 9.2 | .7 | -- |

## 09149400 SPRING CREEK NEAR BEAVER HILL, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | ALUMINUM, DIS-SOLVED (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYLLIUM, TOTAL RECOV-ERABLE (UG/L AS BE) | BERYLLIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHROMIUM, TOTAL RECOV-ERABLE (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAR 24... | 1200 | 20 | 2 | 1 | 200 | 130 | 0 | <1 | 0 | <1 | 30 |

| DATE | CHROMIUM, DIS-SOLVED (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) | COBALT, DIS-SOLVED (UG/L AS CO) | COPPER, DIS-SOLVED (UG/L AS CU) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | LEAD, DIS-SOLVED (UG/L AS PB) | LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) | LITHIUM DIS-SOLVED (UG/L AS LI) | MANGANESE, TOTAL RECOV-ERABLE (UG/L AS MN) | MANGANESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAR 24... | 0 | 0 | <3 | <10 | 3 | 10 | 130 | 130 | 30 | 22 |

| DATE | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MERCURY DIS-SOLVED (UG/L AS HG) | MOLYBDENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | MOLYBDENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | NICKEL, DIS-SOLVED (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SELENIUM, DIS-SOLVED (UG/L AS SE) | STRONTIUM, DIS-SOLVED (UG/L AS SR) | VANADIUM, DIS-SOLVED (UG/L AS V) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAR 24... | .0 | .0 | 1 | <10 | 3 | 0 | 0 | 0 | 980 | <6.0 |

| DATE | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | ZINC, DIS-SOLVED (UG/L AS ZN) | GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT) | GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT) | GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) | GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) | GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) | GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) | GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) | GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAR 24... | 60 | <3 | 4.9 | <.3 | 7.2 | <.4 | 3.1 | <.4 | 3.2 | <.4 |

09149400 SPRING CREEK NEAR BEAVER HILL. CO--Continued

PHYTOPLANKTON ANALYSES. OCTOBER 1979 TO JUNE 1980

| | FEB 19.80 | MAR 24.80 | JUN 9.80 |
|---|---|---|---|
| DATE | FEB 19.80 | MAR 24.80 | JUN 9.80 |
| TIME | 1445 | 1200 | 1100 |
| TOTAL CELLS/ML | 610 | 26 | 96 |
| DIVERSITY: DIVISION | 1.1 | 0.0 | 0.6 |
| .CLASS | 1.1 | 0.0 | 0.6 |
| ..ORDER | 1.3 | 0.0 | 1.4 |
| ...FAMILY | 2.1 | 1.0 | 1.4 |
| ....GENUS | 2.4 | 1.0 | 1.4 |

| ORGANISM | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT |
|---|---|---|---|---|---|---|
| CHLOROPHYTA (GREEN ALGAE) | | | | | | |
| .CHLOROPHYCEAE | | | | | | |
| ..CHLOROCOCCALES | | | | | | |
| ...OOCYSTACEAE | | | | | | |
| ....ANKISTRODESMUS | 5 | 1 | -- | - | -- | - |
| ..VOLVOCALES | | | | | | |
| ...CHLAMYDOMONADACEAE | | | | | | |
| ....CHLAMYDOMONAS | 10 | 2 | -- | - | -- | - |
| CHRYSOPHYTA | | | | | | |
| .BACILLARIOPHYCEAE | | | | | | |
| ..CENTRALES | | | | | | |
| ...COSCINODISCACEAE | | | | | | |
| ....CYCLOTELLA | 20 | 3 | -- | - | 41* | 43 |
| ..PENNALES | | | | | | |
| ...ACHNANTHACEAE | | | | | | |
| ....ACHNANTHES | 35 | 6 | 13* | 50 | 41* | 43 |
| ....COCCONEIS | 5 | 1 | -- | - | -- | - |
| ...CYMBELLACEAE | | | | | | |
| ....CYMBELLA | 5 | 1 | -- | - | -- | - |
| ....EPITHEMIA | 5 | 1 | -- | - | -- | - |
| ...FRAGILARIACEAE | | | | | | |
| ....SYNEDRA | 5 | 1 | -- | - | -- | - |
| ...NAVICULACEAE | | | | | | |
| ....NAVICULA | 60 | 10 | -- | - | -- | - |
| ...NITZSCHIACEAE | | | | | | |
| ....NITZSCHIA | 210* | 35 | 13* | 50 | -- | - |
| CYANOPHYTA (BLUE-GREEN ALGAE) | | | | | | |
| .CYANOPHYCEAE | | | | | | |
| ..CHROOCOCCALES | | | | | | |
| ...CHROOCOCCACEAE | | | | | | |
| ....COCCOCHLORIS | -- | - | -- | - | 14 | 14 |
| ..HORMOGONALES | | | | | | |
| ...OSCILLATORIACEAE | | | | | | |
| ....OSCILLATORIA | 210* | 35 | -- | - | -- | - |
| ....SCHIZOTHRIX | 35 | 6 | -- | - | -- | - |

NOTE: * - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
# - OBSERVED ORGANISM. MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## 09149420 SPRING CREEK NEAR MONTROSE, CO

LOCATION.--Lat 38°31'26", long 107°58'15", in NE¼SE¼ sec.10, T.49 N., R.10 W., Montrose County, Hydrologic Unit 14020006, on left bank 0.8 mi (1.3 km) upstream from mouth and 3.2 mi (5.1 km) northwest of Montrose.

DRAINAGE AREA.--76.6 mi² (198.4 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,570 ft (1,698 m), from topographic map. July 1, 1977, to Nov. 9, 1977, nonrecording gage at site 150 ft (45.7 m) downstream at datum 1.29 ft (0.393 m) lower, and Nov. 10, 1977, to Apr. 15, 1980, water-stage recorder at same site and datum.

REMARKS.--Records good. Natural flow of stream affected by diversions and return flow from irrigated areas. Most flow is return flow.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 295 ft³/s (8.35 m³/s) May 17, 1978, gage height, 3.78 ft (1.152 m); minimum daily, 7.3 ft³/s (0.207 m³/s) Mar. 17, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 288 ft³/s (8.16 m³/s) at 0300 May 22, gage height, 4.19 ft (1.277 m); minimum daily, 8.9 ft³/s (0.25 m³/s) Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 70 | 60 | 19 | 15 | 8.9 | 12 | 40 | 95 | 117 | 82 | 73 | 88 |
| 2 | 69 | 61 | 19 | 14 | 10 | 13 | 31 | 71 | 108 | 88 | 76 | 89 |
| 3 | 70 | 62 | 19 | 17 | 11 | 13 | 21 | 77 | 103 | 89 | 75 | 85 |
| 4 | 70 | 62 | 27 | 11 | 12 | 13 | 21 | 77 | 97 | 89 | 75 | 82 |
| 5 | 79 | 59 | 39 | 11 | 13 | 13 | 21 | 84 | 96 | 84 | 75 | 80 |
| 6 | 87 | 59 | 38 | 12 | 13 | 13 | 21 | 89 | 90 | 86 | 73 | 83 |
| 7 | 82 | 60 | 35 | 11 | 12 | 15 | 23 | 106 | 85 | 92 | 73 | 83 |
| 8 | 76 | 58 | 32 | 11 | 12 | 14 | 26 | 125 | 85 | 93 | 76 | 85 |
| 9 | 75 | 57 | 31 | 14 | 12 | 14 | 28 | 148 | 83 | 85 | 74 | 87 |
| 10 | 79 | 55 | 31 | 17 | 12 | 14 | 30 | 148 | 82 | 86 | 68 | 91 |
| 11 | 81 | 53 | 28 | 15 | 12 | 14 | 35 | 154 | 77 | 84 | 69 | 90 |
| 12 | 84 | 31 | 26 | 14 | 12 | 14 | 38 | 181 | 70 | 87 | 69 | 85 |
| 13 | 85 | 27 | 25 | 15 | 12 | 14 | 37 | 181 | 70 | 96 | 75 | 79 |
| 14 | 81 | 30 | 22 | 18 | 12 | 12 | 38 | 185 | 70 | 93 | 77 | 76 |
| 15 | 80 | 29 | 19 | 19 | 13 | 12 | 40 | 169 | 67 | 90 | 81 | 75 |
| 16 | 83 | 28 | 17 | 18 | 13 | 14 | 50 | 141 | 66 | 86 | 77 | 73 |
| 17 | 88 | 28 | 16 | 18 | 13 | 17 | 52 | 159 | 65 | 80 | 75 | 71 |
| 18 | 92 | 28 | 16 | 18 | 13 | 14 | 55 | 161 | 66 | 79 | 71 | 71 |
| 19 | 93 | 26 | 15 | 17 | 14 | 13 | 56 | 175 | 67 | 80 | 71 | 71 |
| 20 | 98 | 25 | 16 | 16 | 14 | 14 | 57 | 216 | 67 | 80 | 73 | 70 |
| 21 | 102 | 25 | 17 | 15 | 14 | 12 | 59 | 229 | 70 | 82 | 75 | 67 |
| 22 | 97 | 24 | 17 | 14 | 14 | 12 | 74 | 240 | 72 | 82 | 77 | 65 |
| 23 | 97 | 25 | 17 | 12 | 13 | 13 | 90 | 229 | 72 | 82 | 79 | 65 |
| 24 | 89 | 24 | 17 | 9.8 | 13 | 14 | 98 | 232 | 75 | 82 | 95 | 66 |
| 25 | 79 | 23 | 17 | 9.9 | 13 | 15 | 78 | 185 | 80 | 83 | 92 | 64 |
| 26 | 74 | 22 | 17 | 9.2 | 13 | 16 | 56 | 153 | 79 | 83 | 94 | 65 |
| 27 | 74 | 24 | 17 | 11 | 13 | 15 | 52 | 132 | 76 | 80 | 88 | 66 |
| 28 | 71 | 20 | 16 | 12 | 13 | 18 | 54 | 127 | 75 | 74 | 87 | 68 |
| 29 | 71 | 19 | 17 | 11 | 13 | 21 | 58 | 128 | 79 | 70 | 87 | 68 |
| 30 | 71 | 19 | 16 | 9.8 | --- | 34 | 73 | 123 | 78 | 71 | 90 | 70 |
| 31 | 65 | --- | 16 | 9.0 | --- | 41 | --- | 118 | --- | 71 | 89 | --- |
| TOTAL | 2512 | 1123 | 674 | 423.7 | 362.9 | 483 | 1412 | 4638 | 2387 | 2589 | 2429 | 2278 |
| MEAN | 81.0 | 37.4 | 21.7 | 13.7 | 12.5 | 15.6 | 47.1 | 150 | 79.6 | 83.5 | 78.4 | 75.9 |
| MAX | 102 | 62 | 39 | 19 | 14 | 41 | 98 | 240 | 117 | 96 | 95 | 91 |
| MIN | 65 | 19 | 15 | 9.0 | 8.9 | 12 | 21 | 71 | 65 | 70 | 68 | 64 |
| AC-FT | 4980 | 2230 | 1340 | 840 | 720 | 958 | 2800 | 9200 | 4730 | 5140 | 4820 | 4520 |

CAL YR 1979 TOTAL 24306.0 MEAN 66.6 MAX 274 MIN 8.9 AC-FT 48210
WTR YR 1980 TOTAL 21311.6 MEAN 58.2 MAX 240 MIN 8.9 AC-FT 42270

## 09149420 SPRING CREEK NEAR MONTROSE, CO--Continued

PERIOD OF RECORD.--December 1977 to current year.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | TURBIDITY (NTU) | OXYGEN, DISSOLVED (MG/L) | OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) | COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) | STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 10... | 1000 | 70 | 900 | 8.2 | 10.0 | -- | 9.5 | 1 | K250 | 580 |
| NOV 19... | 1315 | 41 | 1300 | 8.0 | 5.0 | -- | -- | 10 | K12 | 840 |
| JAN 07... | 1400 | 21 | 1720 | 8.0 | 6.0 | -- | 10.6 | 16 | K340 | 160 |
| FEB 20... | 0815 | 12 | 1530 | 7.9 | 5.0 | -- | 8.8 | 15 | <5 | 270 |
| MAR 24... | 1400 | 13 | 1220 | 8.2 | 11.0 | 13 | 9.0 | 12 | K15 | K110 |
| MAY 05... | 1415 | 95 | 510 | 7.9 | 12.5 | -- | -- | 26 | 580 | 700 |
| JUN 09... | 1345 | 93 | 710 | 7.7 | 18.0 | -- | 7.8 | 28 | 600 | 1400 |
| JUL 07... | 1215 | 94 | 800 | 7.7 | 16.5 | -- | 7.7 | 11 | -- | 1300 |
| AUG 18... | 1215 | 72 | 920 | 7.8 | 15.5 | -- | 8.0 | -- | K700 | 1900 |

| DATE | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM AD-SORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 10... | 430 | 230 | 120 | 31 | 28 | .6 | 2.8 | 200 | 290 | 4.0 |
| NOV 19... | 720 | 490 | 190 | 59 | 44 | .7 | 3.5 | 230 | 540 | 9.0 |
| JAN 07... | 770 | 510 | 200 | 65 | 49 | .8 | 2.5 | 260 | 550 | 9.9 |
| FEB 20... | 660 | 420 | 170 | 56 | 44 | .7 | 3.0 | 240 | 500 | 10 |
| MAR 24... | 640 | 440 | 166 | 55 | 44 | .8 | 2.8 | 200 | 490 | 9.1 |
| MAY 05... | 250 | 130 | 71 | 18 | 16 | .4 | 2.4 | 120 | 150 | 3.7 |
| JUN 09... | 350 | 200 | 96 | 26 | 20 | .5 | 3.0 | 150 | 210 | 3.5 |
| JUL 07... | 410 | 240 | 114 | 30 | 22 | .5 | 2.9 | 170 | 260 | 3.7 |
| AUG 18... | 470 | 390 | 130 | 35 | 26 | .5 | 3.0 | -- | 300 | 4.2 |

K BASED ON NON-IDEAL COLONY COUNT.

09149420 SPRING CREEK NEAR MONTROSE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 10... | .6 | 16 | 665 | 613 | .90 | 126 | 1.1 | .060 | .50 |
| NOV | | | | | | | | | |
| 19... | .8 | 19 | 1030 | 1000 | 1.40 | 114 | 2.2 | .110 | .71 |
| JAN | | | | | | | | | |
| 07... | .8 | 21 | 1090 | 1060 | 1.48 | 61.8 | 2.6 | .020 | 1.2 |
| FEB | | | | | | | | | |
| 20... | .8 | 16 | 1010 | 944 | 1.37 | 32.7 | 2.0 | .070 | .27 |
| MAR | | | | | | | | | |
| 24... | .7 | 16 | 933 | -- | 1.27 | 32.7 | 1.9 | .060 | .34 |
| MAY | | | | | | | | | |
| 05... | .4 | 13 | 366 | 347 | .50 | 93.9 | .53 | .040 | 1.1 |
| JUN | | | | | | | | | |
| 09... | .5 | 15 | 502 | 464 | .68 | 126 | .74 | .010 | .67 |
| JUL | | | | | | | | | |
| 07... | .8 | 17 | 585 | 554 | .80 | 148 | .84 | .000 | 3.1 |
| AUG | | | | | | | | | |
| 18... | .5 | 27 | 631 | 576 | .86 | 124 | -- | -- | -- |

| DATE | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | BORON, DIS-SOLVED (UG/L AS B) | IRON, DIS-SOLVED (UG/L AS FE) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) | CARBON, ORGANIC SUS-PENDED (MG/L AS C) | PHYTO-PLANK-TON, TOTAL (CELLS PER ML) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 10... | .56 | 1.7 | .020 | .010 | 100 | 10 | 5.7 | .3 | 360 |
| NOV | | | | | | | | | |
| 19... | .82 | 3.0 | .020 | .010 | 150 | <10 | 17 | .1 | 360 |
| JAN | | | | | | | | | |
| 07... | 1.2 | 3.8 | .010 | .010 | 150 | 200 | 6.8 | .4 | 1100 |
| FEB | | | | | | | | | |
| 20... | .34 | 2.3 | .040 | .000 | 130 | 20 | 7.4 | 1.5 | 990 |
| MAR | | | | | | | | | |
| 24... | .40 | 2.3 | .020 | .020 | 130 | 15 | 3.1 | .8 | 280 |
| MAY | | | | | | | | | |
| 05... | 1.1 | 1.6 | .110 | .050 | 70 | 40 | 6.5 | 3.1 | -- |
| JUN | | | | | | | | | |
| 09... | .68 | 1.4 | .150 | .040 | 100 | 30 | 14 | 1.1 | -- |
| JUL | | | | | | | | | |
| 07... | 3.1 | 3.9 | .140 | .010 | 90 | 15 | 21 | .7 | 530 |
| AUG | | | | | | | | | |
| 18... | -- | -- | -- | .020 | 90 | -- | -- | -- | 880 |

| DATE | ALUM-INUM, DIS-SOLVED (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 19... | 10 | -- | 1 | -- | 50 | -- | <1 | -- | <1 | -- | 0 |
| JAN | | | | | | | | | | | |
| 07... | 370 | -- | 2 | -- | 40 | -- | <1 | -- | <1 | -- | 0 |
| MAR | | | | | | | | | | | |
| 24... | 10 | 2 | 1 | 200 | 40 | 0 | <1 | 0 | <1 | 30 | 0 |
| JUL | | | | | | | | | | | |
| 07... | 10 | -- | 2 | -- | 60 | -- | <1 | -- | <1 | -- | 10 |

## 09149420 SPRING CREEK NEAR MONTROSE, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) | COBALT, DIS-SOLVED (UG/L AS CO) | COPPER, DIS-SOLVED (UG/L AS CU) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | LEAD, DIS-SOLVED (UG/L AS PB) | LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) | LITHIUM DIS-SOLVED (UG/L AS LI) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MERCURY DIS-SOLVED (UG/L AS HG) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 19... | -- | <3 | 0 | -- | 24 | -- | 90 | -- | 40 | -- | .1 |
| JAN | | | | | | | | | | | |
| 07... | -- | <3 | 0 | -- | 1 | -- | 90 | -- | 50 | -- | .0 |
| MAR | | | | | | | | | | | |
| 24... | 1 | <3 | <10 | 4 | 0 | 90 | 96 | 60 | 34 | .0 | .0 |
| JUL | | | | | | | | | | | |
| 07... | -- | <3 | <10 | -- | 61 | -- | 55 | -- | 20 | -- | .0 |

| DATE | MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | NICKEL, DIS-SOLVED (UG/L AS NI) | SELE-NIUM, TOTAL (UG/L AS SE) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | STRON-TIUM, DIS-SOLVED (UG/L AS SR) | VANA-DIUM, DIS-SOLVED (UG/L AS V) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | ZINC, DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 19... | -- | <10 | -- | 0 | -- | 2 | -- | 3.0 | -- | 7 |
| JAN | | | | | | | | | | |
| 07... | -- | 11 | -- | 1 | -- | 3 | -- | 2.0 | -- | <3 |
| MAR | | | | | | | | | | |
| 24... | 2 | <10 | 3 | 1 | 2 | 2 | 1600 | <6.0 | 10 | 4 |
| JUL | | | | | | | | | | |
| 07... | -- | <10 | -- | 4 | -- | 1 | 1100 | <6.0 | -- | 7 |

| DATE | GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT) | GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT) | GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) | GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) | GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) | GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) | GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) | GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) |
|---|---|---|---|---|---|---|---|---|
| MAR | | | | | | | | |
| 24... | <9.5 | .5 | <14 | .7 | <5.8 | .8 | <5.9 | .8 |

### SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) | DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | MAY | | | | |
| 10... | 1000 | 70 | 85 | 16 | 05... | 1415 | 95 | 394 | 101 |
| NOV | | | | | JUN | | | | |
| 19... | 1415 | 41 | 16 | 1.8 | 09... | 1345 | 93 | 234 | 59 |
| JAN | | | | | JUL | | | | |
| 07... | 1430 | 11 | 62 | 1.8 | 07... | 1215 | 94 | 355 | 90 |
| FEB | | | | | AUG | | | | |
| 20... | 1815 | 12 | 84 | 2.7 | 18... | 1215 | 73 | 192 | 38 |
| MAR | | | | | | | | | |
| 24... | 1400 | 13 | 27 | .95 | | | | | |

09149420 SPRING CREEK NEAR MONTROSE, CO--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO AUGUST 1980

| DATE | OCT 10,79 | NOV 19,79 | JAN 7,80 | FEB 20,80 |
|---|---|---|---|---|
| TIME | 1000 | 1315 | 1400 | 0815 |
| TOTAL CELLS/ML | 360 | 360 | 1100 | 990 |
| DIVERSITY: DIVISION | 1.4 | 1.0 | 0.1 | 0.2 |
| .CLASS | 1.4 | 1.0 | 0.1 | 0.2 |
| ..ORDER | 2.0 | 1.0 | 1.1 | 1.1 |
| ...FAMILY | 2.6 | 1.5 | 2.0 | 1.7 |
| ....GENUS | 2.8 | 1.5 | 2.0 | 1.8 |

| ORGANISM | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT |
|---|---|---|---|---|---|---|---|---|
| CHLOROPHYTA (GREEN ALGAE) | | | | | | | | |
| .CHLOROPHYCEAE | | | | | | | | |
| ..CHLOROCOCCALES | | | | | | | | |
| ...CHLOROCOCCACEAE | | | | | | | | |
| ....CHLOROCOCCUM | 50 | 14 | -- | - | -- | - | -- | - |
| ...OOCYSTACEAE | | | | | | | | |
| ....ANKISTRODESMUS | -- | - | -- | - | -- | - | -- | - |
| ....FRANCEIA | -- | - | -- | - | -- | - | -- | - |
| ..VOLVOCALES | | | | | | | | |
| ...CHLAMYDOMONADACEAE | | | | | | | | |
| ....CHLAMYDOMONAS | 20 | 6 | -- | - | 10 | 1 | 9 | 1 |
| CHRYSOPHYTA | | | | | | | | |
| .BACILLARIOPHYCEAE | | | | | | | | |
| ..CENTRALES | | | | | | | | |
| ...COSCINODISCACEAE | | | | | | | | |
| ....CYCLOTELLA | 35 | 10 | -- | - | 470[3] | 42 | 650[3] | 65 |
| ..PENNALES | | | | | | | | |
| ...ACHNANTHACEAE | | | | | | | | |
| ....ACHNANTHES | -- | - | -- | - | -- | - | 36 | 4 |
| ....COCCONEIS | 25 | 7 | -- | - | 10 | 1 | 9 | 1 |
| ....RHOICOSPHENIA | -- | - | -- | - | -- | - | -- | - |
| ...CYMBELLACEAE | | | | | | | | |
| ....CYMBELLA | -- | - | -- | - | 31 | 3 | -- | - |
| ...DIATOMACEAE | | | | | | | | |
| ....DIATOMA | -- | - | -- | - | -- | - | -- | - |
| ...FRAGILARIACEAE | | | | | | | | |
| ....FRAGILARIA | -- | - | -- | - | -- | - | -- | - |
| ....SYNEDRA | 5 | 1 | -- | - | -- | - | 9 | 1 |
| ...GOMPHONEMATACEAE | | | | | | | | |
| ....GOMPHONEMA | -- | - | 13 | 4 | 41 | 4 | -- | - |
| ...MERIDIONACEAE | | | | | | | | |
| ....MERIDION | -- | - | -- | - | -- | - | -- | - |
| ...NAVICULACEAE | | | | | | | | |
| ....NAVICULA | 120[3] | 34 | 100[3] | 29 | 390[3] | 36 | 99 | 10 |
| ...NITZSCHIACEAE | | | | | | | | |
| ....NITZSCHIA | 20 | 6 | 39 | 11 | 83 | 8 | 63 | 6 |
| ...SURIRELLACEAE | | | | | | | | |
| ....SURIRELLA | -- | - | -- | - | 62 | 6 | 99 | 10 |
| CYANOPHYTA (BLUE-GREEN ALGAE) | | | | | | | | |
| .CYANOPHYCEAE | | | | | | | | |
| ..HORMOGONALES | | | | | | | | |
| ...OSCILLATORIACEAE | | | | | | | | |
| ....OSCILLATORIA | 40 | 11 | 210[3] | 57 | -- | - | -- | - |
| ....SCHIZOTHRIX | 40 | 11 | -- | - | -- | - | -- | - |
| EUGLENOPHYTA (EUGLENOIDS) | | | | | | | | |
| .EUGLENOPHYCEAE | | | | | | | | |
| ..EUGLENALES | | | | | | | | |
| ...EUGLENACEAE | | | | | | | | |
| ....EUGLENA | -- | - | -- | - | -- | - | -- | - |
| ....TRACHELOMONAS | -- | - | -- | - | -- | - | 18 | 2 |
| PYRRHOPHYTA (FIRE ALGAE) | | | | | | | | |
| .DINOPHYCEAE | | | | | | | | |
| ..PERIDINIALES | | | | | | | | |
| ...GLENODINIACEAE | | | | | | | | |
| ....GLENODINIUM | -- | - | -- | - | -- | - | -- | - |

NOTE: [3] - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## 09149420 SPRING CREEK NEAR MONTROSE, CO--Continued

### PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO AUGUST 1980

| DATE | MAR 24,80 | JUN 9,80 | JUL 7,80 | AUG 18,80 |
|---|---|---|---|---|
| TIME | 1400 | 0000 | 1215 | 1215 |
| TOTAL CELLS/ML | 280 | 2000 | 530 | 880 |
| DIVERSITY: DIVISION | 0.3 | 0.8 | 1.1 | 0.9 |
| .CLASS | 0.3 | 0.8 | 1.1 | 0.9 |
| ..ORDER | 1.1 | 1.2 | 1.1 | 1.0 |
| ...FAMILY | 2.4 | 3.1 | 2.2 | 1.2 |
| ....GENUS | 2.4 | 3.2 | 2.3 | 1.2 |

| ORGANISM | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT |
|---|---|---|---|---|---|---|---|---|
| CHLOROPHYTA (GREEN ALGAE) | | | | | | | | |
| .CHLOROPHYCEAE | | | | | | | | |
| ..CHLOROCOCCALES | | | | | | | | |
| ...CHLOROCOCCACEAE | | | | | | | | |
| ....CHLOROCOCCUM | -- | - | -- | - | -- | - | -- | - |
| ...OOCYSTACEAE | | | | | | | | |
| ....ANKISTRODESMUS | -- | - | 34 | 2 | -- | - | -- | - |
| ....FRANCEIA | -- | - | 17 | 1 | -- | - | -- | - |
| ..VOLVOCALES | | | | | | | | |
| ...CHLAMYDOMONADACEAE | | | | | | | | |
| ....CHLAMYDOMONAS | 13 | 5 | 52 | 3 | 13 | 2 | -- | - |
| CHRYSOPHYTA | | | | | | | | |
| .BACILLARIOPHYCEAE | | | | | | | | |
| ..CENTRALES | | | | | | | | |
| ...COSCINODISCACEAE | | | | | | | | |
| ....CYCLOTELLA | 78[3] | 27 | 140 | 7 | -- | - | 13 | 1 |
| ..PENNALES | | | | | | | | |
| ...ACHNANTHACEAE | | | | | | | | |
| ....ACHNANTHES | 52[3] | 18 | 120 | 6 | 13 | 2 | -- | - |
| ....COCCONEIS | -- | - | -- | - | -- | - | -- | - |
| ....RHOICOSPHENIA | -- | - | 17 | 1 | -- | - | -- | - |
| ...CYMBELLACEAE | | | | | | | | |
| ....CYMBELLA | -- | - | 17 | 1 | -- | - | -- | - |
| ...DIATOMACEAE | | | | | | | | |
| ....DIATOMA | -- | - | 86 | 4 | -- | - | -- | - |
| ...FRAGILARIACEAE | | | | | | | | |
| ....FRAGILARIA | -- | - | -- | - | 90[3] | 17 | -- | - |
| ....SYNEDRA | -- | - | 120 | 6 | 13 | 2 | -- | - |
| ...GOMPHONEMATACEAE | | | | | | | | |
| ....GOMPHONEMA | -- | - | 34 | 2 | -- | - | 13 | 1 |
| ...MERIDIONACEAE | | | | | | | | |
| ....MERIDION | -- | - | 17 | 1 | -- | - | -- | - |
| ...NAVICULACEAE | | | | | | | | |
| ....NAVICULA | 39 | 14 | 460[3] | 23 | 120[3] | 22 | 39 | 4 |
| ...NITZSCHIACEAE | | | | | | | | |
| ....NITZSCHIA | 65[3] | 23 | 500[3] | 25 | 90[3] | 17 | 51 | 6 |
| ...SURIRELLACEAE | | | | | | | | |
| ....SURIRELLA | 39 | 14 | 150 | 8 | -- | - | -- | - |
| CYANOPHYTA (BLUE-GREEN ALGAE) | | | | | | | | |
| .CYANOPHYCEAE | | | | | | | | |
| ..HORMOGONALES | | | | | | | | |
| ...OSCILLATORIACEAE | | | | | | | | |
| ....OSCILLATORIA | -- | - | 210 | 10 | 190[3] | 37 | 700[3] | 79 |
| ....SCHIZOTHRIX | -- | - | -- | - | -- | - | -- | - |
| EUGLENOPHYTA (EUGLENOIDS) | | | | | | | | |
| .EUGLENOPHYCEAE | | | | | | | | |
| ..EUGLENALES | | | | | | | | |
| ...EUGLENACEAE | | | | | | | | |
| ....EUGLENA | -- | - | -- | - | -- | - | 64 | 7 |
| ....TRACHELOMONAS | -- | - | -- | - | -- | - | -- | - |
| PYRRHOPHYTA (FIRE ALGAE) | | | | | | | | |
| .DINOPHYCEAE | | | | | | | | |
| ..PERIDINIALES | | | | | | | | |
| ...GLENODINIACEAE | | | | | | | | |
| ....GLENODINIUM | -- | - | 17 | 1 | -- | - | -- | - |

NOTE: [3] - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## 09149500 UNCOMPAHGRE RIVER AT DELTA, CO

LOCATION.--Lat 38°44'31", long 108°04'49", in SW¼SW¼ sec.13, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020006, on right bank 525 ft (160 m) downstream from 5th Street Bridge at west edge of Delta and 1.1 mi (1.8 km) upstream from mouth.

DRAINAGE AREA.--1,129 mi² (2,924 km²).

PERIOD OF RECORD.--April 1903 to October 1931 (no winter records in most years), September 1938 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Delta" 1907-24.

REVISED RECORDS.--WSP 1243: 1904. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,926.49 ft (1,501.594 m), National Geodetic Vertical Datum of 1929. Feb. 18, 1960, to Mar. 26, 1963, water-stage recorder at site 750 ft (230 m) upstream at datum 3.43 ft (1.045 m) higher. Mar. 27, 1963, to May 12, 1965, water-stage recorder at site 1,050 ft (320 m) upstream at datum 6.08 ft (1.045 m) higher. See WSP 1733 or 1924 for history of changes prior to Feb. 18, 1960.

REMARKS.--Records good. Natural flow of stream affected by water diverted from Gunnison River (see record of diversion through Gunnison tunnel published with station 09128000) and other adjacent basins, diversions for irrigation of about 90,000 acres (364 km²) above station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--44 years (water years 1908, 1921, 1939-80), 277 ft³/s (7.845 m³/s), 200,700 acre-ft/yr (247 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 3,730 ft³/s (106 m³/s) May 5,1941, gage height, 5.90 ft (1.798 m), site and datum then in use, from rating curve extended above 1,900 ft³/s (54 m³/s); no flow at times in 1908; minimum daily determined since beginning of diversion through Gunnison tunnel, 7 ft³/s (0.20 m³/s) July 10-15, 17, 21, 24-28, 1910.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,310 ft³/s (37.1 m³/s) at 1130 May 9, gage height, 5.26 ft (1.603 m) from peak stage indicator; minimum daily, 69 ft³/s (1.95 m³/s) Mar. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 224 | 343 | 202 | 168 | 117 | 138 | 153 | 826 | 396 | 400 | 118 | 199 |
| 2 | 211 | 336 | 196 | 168 | 126 | 116 | 175 | 790 | 400 | 441 | 120 | 193 |
| 3 | 220 | 329 | 199 | 166 | 133 | 113 | 259 | 590 | 339 | 414 | 123 | 193 |
| 4 | 217 | 332 | 199 | 163 | 136 | 116 | 227 | 585 | 380 | 372 | 115 | 175 |
| 5 | 217 | 329 | 211 | 158 | 140 | 113 | 148 | 655 | 441 | 325 | 108 | 178 |
| 6 | 220 | 325 | 208 | 154 | 135 | 103 | 140 | 650 | 560 | 280 | 113 | 187 |
| 7 | 224 | 353 | 214 | 157 | 140 | 102 | 135 | 808 | 531 | 245 | 108 | 196 |
| 8 | 227 | 376 | 217 | 155 | 137 | 81 | 128 | 1050 | 477 | 290 | 113 | 214 |
| 9 | 227 | 392 | 211 | 154 | 120 | 74 | 148 | 1160 | 625 | 234 | 113 | 269 |
| 10 | 238 | 388 | 208 | 164 | 108 | 79 | 184 | 1040 | 757 | 214 | 106 | 357 |
| 11 | 248 | 380 | 208 | 165 | 107 | 82 | 145 | 1010 | 982 | 187 | 99 | 490 |
| 12 | 259 | 304 | 202 | 159 | 107 | 84 | 231 | 1130 | 880 | 220 | 99 | 472 |
| 13 | 262 | 249 | 187 | 159 | 120 | 77 | 234 | 934 | 832 | 304 | 106 | 459 |
| 14 | 273 | 211 | 181 | 172 | 123 | 70 | 208 | 826 | 785 | 332 | 108 | 454 |
| 15 | 269 | 205 | 184 | 205 | 128 | 72 | 118 | 746 | 685 | 241 | 138 | 459 |
| 16 | 238 | 217 | 190 | 186 | 137 | 70 | 113 | 625 | 620 | 193 | 150 | 427 |
| 17 | 241 | 220 | 190 | 170 | 138 | 73 | 155 | 715 | 504 | 181 | 155 | 388 |
| 18 | 255 | 227 | 196 | 167 | 133 | 89 | 193 | 730 | 513 | 181 | 148 | 380 |
| 19 | 273 | 241 | 190 | 153 | 200 | 83 | 234 | 690 | 620 | 169 | 135 | 380 |
| 20 | 297 | 245 | 187 | 154 | 214 | 85 | 350 | 741 | 545 | 172 | 133 | 364 |
| 21 | 468 | 231 | 190 | 158 | 178 | 75 | 325 | 826 | 499 | 175 | 130 | 360 |
| 22 | 535 | 224 | 193 | 141 | 140 | 69 | 311 | 952 | 499 | 150 | 125 | 364 |
| 23 | 441 | 217 | 193 | 138 | 123 | 77 | 372 | 1040 | 499 | 158 | 123 | 364 |
| 24 | 436 | 214 | 181 | 127 | 121 | 77 | 400 | 964 | 499 | 143 | 184 | 360 |
| 25 | 405 | 217 | 181 | 129 | 111 | 76 | 336 | 710 | 477 | 140 | 373 | 357 |
| 26 | 392 | 224 | 181 | 135 | 107 | 82 | 290 | 508 | 463 | 143 | 283 | 368 |
| 27 | 392 | 217 | 184 | 132 | 112 | 148 | 297 | 508 | 468 | 133 | 238 | 368 |
| 28 | 405 | 196 | 184 | 139 | 116 | 153 | 308 | 409 | 405 | 128 | 227 | 368 |
| 29 | 414 | 181 | 181 | 139 | 139 | 135 | 350 | 409 | 332 | 130 | 220 | 357 |
| 30 | 409 | 202 | 175 | 141 | --- | 184 | 526 | 400 | 325 | 125 | 214 | 350 |
| 31 | 353 | --- | 169 | 128 | --- | 199 | --- | 380 | --- | 120 | 211 | --- |
| TOTAL | 9490 | 8124 | 5992 | 4804 | 3846 | 3095 | 7193 | 23407 | 16338 | 6940 | 4736 | 10050 |
| MEAN | 306 | 271 | 193 | 155 | 133 | 99.8 | 240 | 755 | 545 | 224 | 153 | 335 |
| MAX | 535 | 392 | 217 | 205 | 214 | 199 | 526 | 1160 | 982 | 441 | 373 | 490 |
| MIN | 211 | 181 | 169 | 127 | 107 | 69 | 113 | 380 | 325 | 120 | 99 | 175 |
| AC-FT | 18820 | 16110 | 11890 | 9530 | 7630 | 6140 | 14270 | 46430 | 32410 | 13770 | 9390 | 19930 |

CAL YR 1979 TOTAL 119693 MEAN 328 MAX 1800 MIN 93 AC-FT 237400
WTR YR 1980 TOTAL 104015 MEAN 284 MAX 1160 MIN 69 AC-FT 206300

## 09149900 POTTER CREEK NEAR COLUMBINE PASS, CO

LOCATION.--Lat 38°28'47", long 108°18'46", in NW¼SW¼ sec.27, T.49 N., R.13 W., Montrose County, Hydrologic Unit 14020005, on right bank 200 ft (61 m) downstream from Roubideau Trail ford and 80 ft (24 m) above a small unnamed tributary entering from the right side.

DRAINAGE AREA.--7.10 mi² (18.4 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 7,835 ft (2,388 m), from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. No regulation or diversion above station.

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge during period May to September, 113 ft³/s (3.20 m³/s) at 1900 May 29, gage height, 4.07 ft (1.241 m); minimum daily, 0.05 ft³/s (0.001 m³/s) Sept. 5.

Results of discharge measurements made in 1979 water year

| Date | Discharge | |
|---|---|---|
| | ft³/s | m³/s |
| June 27 | 1.34 | 0.038 |
| July 26 | .04 | .001 |
| Aug. 6 | .02 | .001 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | 28 | 64 | 1.0 | .12 | .07 |
| 2 | | | | | | | | 26 | 61 | 1.2 | .12 | .07 |
| 3 | | | | | | | | 24 | 70 | .77 | .12 | .06 |
| 4 | | | | | | | | 22 | 79 | .51 | .12 | .06 |
| 5 | | | | | | | | 26 | 79 | .35 | .12 | .05 |
| 6 | | | | | | | | 30 | 67 | .30 | .11 | .06 |
| 7 | | | | | | | | 39 | 58 | .28 | .11 | .07 |
| 8 | | | | | | | | 37 | 54 | .26 | .11 | .08 |
| 9 | | | | | | | | 40 | 52 | .22 | .11 | .08 |
| 10 | | | | | | | | 38 | 50 | .20 | .11 | .05 |
| 11 | | | | | | | | 50 | 46 | .19 | .11 | .09 |
| 12 | | | | | | | | 44 | 42 | .18 | .11 | .09 |
| 13 | | | | | | | | 41 | 38 | .18 | .11 | .09 |
| 14 | | | | | | | | 35 | 32 | .17 | .11 | .09 |
| 15 | | | | | | | | 16 | 26 | .15 | .10 | .08 |
| 16 | | | | | | | | 13 | 23 | .13 | .08 | .08 |
| 17 | | | | | | | | 10 | 20 | .12 | .07 | .08 |
| 18 | | | | | | | | 12 | 18 | .11 | .08 | .08 |
| 19 | | | | | | | | 18 | 15 | .10 | .06 | .07 |
| 20 | | | | | | | | 22 | 12 | .09 | .08 | .07 |
| 21 | | | | | | | | 28 | 10 | .09 | .08 | .07 |
| 22 | | | | | | | | 37 | 8.6 | .08 | .06 | .07 |
| 23 | | | | | | | | 50 | 6.8 | .08 | .06 | .07 |
| 24 | | | | | | | | 64 | 5.6 | .09 | .09 | .07 |
| 25 | | | | | | | | 52 | 4.4 | .12 | .10 | .07 |
| 26 | | | | | | | | 25 | 3.6 | .14 | .10 | .07 |
| 27 | | | | | | | | 27 | 2.5 | .13 | .09 | .07 |
| 28 | | | | | | | | 38 | 2.0 | .13 | .09 | .07 |
| 29 | | | | | | | | 86 | 1.5 | .13 | .08 | .06 |
| 30 | | | | | | | | 81 | 1.4 | .13 | .08 | .06 |
| 31 | | | | | | | | 76 | --- | .12 | .08 | --- |
| TOTAL | | | | | | | | 1135 | 952.4 | 7.75 | 2.97 | 2.19 |
| MEAN | | | | | | | | 36.6 | 31.7 | .25 | .096 | .073 |
| MAX | | | | | | | | 86 | 79 | 1.2 | .12 | .09 |
| MIN | | | | | | | | 10 | 1.4 | .08 | .06 | .05 |
| AC-FT | | | | | | | | 2250 | 1890 | 15 | 5.9 | 4.3 |

## 09149900 POTTER CREEK NEAR COLUMBINE PASS, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1980.

INSTRUMENTATION.--Pumping sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 02... | 1030 | .03 | 205 | 7.1 | .0 | -- | 93 | 22 | 28 |
| MAY | | | | | | | | | |
| 01... | 1600 | 28 | 65 | 7.0 | 2.0 | -- | 26 | 7 | 7.5 |
| 29... | 1300 | 80 | 33 | 7.2 | 5.0 | -- | 14 | 0 | 4.0 |
| JUN | | | | | | | | | |
| 10... | 1400 | 39 | 38 | 6.3 | 8.5 | -- | 34 | 25 | 12 |
| JUL | | | | | | | | | |
| 09... | 1125 | .23 | 110 | 6.9 | 14.5 | 6.8 | 47 | 8 | 14 |

| DATE | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 02... | 5.5 | 4.8 | .2 | 1.9 | 71 | 26 | 2.5 | .1 | 5.8 |
| MAY | | | | | | | | | |
| 01... | 1.8 | 1.3 | .1 | 1.3 | 19 | 4.8 | .8 | .1 | 5.1 |
| 29... | 1.0 | .6 | .1 | .8 | 17 | 1.3 | .3 | .1 | 4.6 |
| JUN | | | | | | | | | |
| 10... | 1.0 | .8 | .1 | .4 | 9 | 4.4 | .7 | .0 | 2.7 |
| JUL | | | | | | | | | |
| 09... | 2.8 | 2.4 | .2 | 1.7 | 39 | 6.8 | 1.0 | .1 | 6.3 |

| DATE | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | |
| 02... | 118 | .16 | .01 | -- | .06 | .000 | <10 | 3 |
| MAY | | | | | | | | |
| 01... | 34 | .05 | 2.62 | 11 | .01 | .010 | 70 | 2 |
| 29... | 23 | .03 | 4.97 | 1 | .02 | .010 | 100 | 3 |
| JUN | | | | | | | | |
| 10... | 26 | .04 | 2.99 | 4 | .00 | .010 | 140 | 20 |
| JUL | | | | | | | | |
| 09... | 59 | .08 | .04 | -- | .11 | .000 | 20 | 2 |

## 09149910 POTTER CREEK NEAR OLATHE, CO

LOCATION.--Lat 38°36'54", long 108°12'22", in SE¼NE¼ sec.9, T.50 N., R.12 W., Montrose County, Hydrologic Unit 14020005, on right bank 0.38 mi (0.62 km) above confluence with Monitor Creek, 11 mi (18 km) west of Olathe, and 12 mi (19 km) southwest of Delta.

DRAINAGE AREA.--26.0 mi² (67.3 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 5,410 ft (1,649 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 277 ft³/s (7.84 m³/s) June 4, 1980, gage height, 5.40 ft (1.646 m), from rating curve extended above 40 ft³/s (1.13 m³/s); no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 277 ft³/s (7.84 m³/s) at 2400 June 4, gage height, 5.40 ft (1.646 m), from rating curve extended above 40 ft³/s (1.13 m³/s); no flow many days.

Results of discharge measurements made in water year 1979

| Date | Discharge (ft³/s) | Discharge (m³/s) |
|---|---|---|
| June 27 | 1.50 | 0.042 |
| July 26 | 0 | 0 |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .01 | .05 | .00 | .00 | .00 | .22 | .01 | 30 | 19 | 1.7 | .21 | .00 |
| 2 | .01 | .04 | .00 | .00 | .00 | .20 | .02 | 36 | 25 | 1.6 | .20 | .00 |
| 3 | .01 | .03 | .00 | .00 | .04 | .19 | .01 | 40 | 150 | 1.2 | .18 | .00 |
| 4 | .01 | .04 | .00 | .00 | .10 | .18 | .01 | 54 | 142 | .86 | .17 | .00 |
| 5 | .01 | .03 | .00 | .00 | .04 | .16 | .01 | 51 | 102 | .78 | .16 | .00 |
| 6 | .01 | .02 | .00 | .00 | .01 | .16 | .01 | 54 | 72 | .70 | .16 | .00 |
| 7 | .02 | .04 | .00 | .00 | .00 | .16 | .01 | 51 | 62 | .67 | .15 | .00 |
| 8 | .02 | .05 | .00 | .00 | .00 | .13 | .01 | 69 | 68 | .58 | .14 | .00 |
| 9 | .02 | .06 | .00 | .00 | .00 | .12 | .03 | 60 | 64 | .48 | .14 | .00 |
| 10 | .02 | .06 | .00 | .00 | .00 | .10 | .03 | 60 | 56 | .44 | .12 | .20 |
| 11 | .02 | .06 | .00 | .00 | .00 | .10 | .05 | 49 | 44 | .43 | .10 | .06 |
| 12 | .02 | .06 | .00 | .02 | .02 | .09 | .06 | 22 | 32 | .42 | .08 | .01 |
| 13 | .02 | .05 | .00 | .03 | .22 | .07 | .09 | 19 | 33 | .38 | .09 | .02 |
| 14 | .03 | .04 | .00 | .04 | .45 | .06 | .10 | 16 | 24 | .32 | .10 | .02 |
| 15 | .03 | .03 | .00 | .04 | .53 | .04 | .22 | 14 | 19 | .29 | .09 | .02 |
| 16 | .03 | .03 | .00 | .03 | .60 | .03 | .66 | 28 | 17 | .27 | .07 | .01 |
| 17 | .03 | .03 | .00 | .02 | 1.0 | .01 | .86 | 28 | 14 | .22 | .06 | .01 |
| 18 | .03 | .03 | .00 | .02 | .80 | .01 | 1.3 | 37 | 12 | .14 | .04 | .01 |
| 19 | .06 | .02 | .00 | .02 | 1.1 | .00 | 2.3 | 47 | 9.5 | .08 | .01 | .01 |
| 20 | .06 | .02 | .00 | .00 | 1.6 | .00 | 3.8 | 62 | 9.0 | .04 | .01 | .01 |
| 21 | .05 | .01 | .00 | .00 | 1.2 | .00 | 5.9 | 89 | 8.1 | .01 | .01 | .01 |
| 22 | .05 | .02 | .00 | .00 | .76 | .00 | 8.5 | 79 | 5.6 | .01 | .01 | .01 |
| 23 | .07 | .01 | .00 | .00 | .60 | .01 | 17 | 54 | 5.2 | .01 | .02 | .01 |
| 24 | .08 | .00 | .00 | .00 | .48 | .01 | 16 | 19 | 4.4 | .01 | .06 | .01 |
| 25 | .06 | .02 | .00 | .00 | .37 | .01 | 15 | 13 | 3.7 | .03 | .06 | .01 |
| 26 | .04 | .03 | .00 | .00 | .32 | .00 | 19 | 14 | 3.3 | .79 | .05 | .01 |
| 27 | .03 | .02 | .00 | .00 | .28 | .00 | 32 | 20 | 2.8 | .46 | .04 | .01 |
| 28 | .04 | .01 | .00 | .00 | .26 | .00 | 41 | 30 | 2.3 | .30 | .02 | .01 |
| 29 | .04 | .00 | .00 | .00 | .24 | .00 | 39 | 29 | 2.3 | .27 | .01 | .01 |
| 30 | .05 | .00 | .00 | .00 | --- | .00 | 35 | 29 | 1.5 | .26 | .00 | .01 |
| 31 | .06 | --- | .00 | .00 | --- | .01 | --- | 23 | --- | .23 | .00 | --- |
| TOTAL | 1.04 | .91 | .00 | .22 | 11.02 | 2.07 | 237.99 | 1226 | 1012.9 | 13.98 | 2.56 | .48 |
| MEAN | .034 | .030 | .000 | .007 | .38 | .067 | 7.93 | 39.5 | 33.8 | .45 | .083 | .016 |
| MAX | .08 | .06 | .00 | .04 | 1.6 | .22 | 41 | 89 | 150 | 1.7 | .21 | .20 |
| MIN | .01 | .00 | .00 | .00 | .00 | .00 | .01 | 13 | 1.5 | .01 | .00 | .00 |
| AC-FT | 2.1 | 1.8 | .00 | .4 | 22 | 4.1 | 472 | 2430 | 2010 | 28 | 5.1 | 1.0 |

WTR YR 1980 TOTAL 2509.17 MEAN 6.86 MAX 150 MIN .00 AC-FT 4980

NOTE.--NO GAGE-HEIGHT RECORD OCT. 20 TO FEB. 19.

## 09149910 POTTER CREEK NEAR OLATHE. CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1980

INSTRUMENTATION.--Pumping sampler.

### WATER-QUALITY DATA. WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW. INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE. WATER (DEG C) | HARD-NESS (MG/L AS CACO3) | HARD-NESS. NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM. DIS-SOLVED (MG/L AS MG) | SODIUM. DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM. DIS-SOLVED (MG/L AS K) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | | |
| 19... | 1100 | 1.0 | 618 | 8.1 | 4.5 | 140 | 2 | 32 | 15 | 81 | 3.0 | 6.9 |
| APR | | | | | | | | | | | | |
| 29... | 1100 | 38 | 118 | 7.9 | 5.0 | 51 | 13 | 15 | 3.3 | 4.0 | .2 | 1.6 |
| JUN | | | | | | | | | | | | |
| 13... | 0930 | 32 | 90 | 7.4 | 9.5 | 36 | 0 | 11 | 2.1 | 2.2 | .2 | 1.0 |

| DATE | ALKA-LINITY (MG/L AS CACO3) | CHLO-RIDE. DIS-SOLVED (MG/L AS CL) | FLUO-RIDE. DIS-SOLVED (MG/L AS F) | SILICA. DIS-SOLVED (MG/L AS SIO2) | SOLIDS. SUM OF CONSTI-TUENTS. DIS-SOLVED (MG/L) | SOLIDS. DIS-SOLVED (TONS PER AC-FT) | SOLIDS. DIS-SOLVED (TONS PER DAY) | NITRO-GEN. NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS. DIS-SOLVED (MG/L AS P) | IRON. DIS-SOLVED (UG/L AS FE) | MANGA-NESE. DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | |
| 19... | 140 | 7.2 | .3 | 12 | 401 | .55 | 1.08 | .49 | .030 | 420 | 20 |
| APR | | | | | | | | | | | |
| 29... | 38 | 1.6 | .1 | 5.3 | 66 | .09 | 6.93 | .03 | .010 | 20 | 5 |
| JUN | | | | | | | | | | | |
| 13... | 40 | .4 | .1 | 4.8 | 60 | .08 | 5.28 | .06 | .000 | 70 | <3 |

## 09150500 ROUBIDEAU CREEK AT MOUTH, NEAR DELTA, CO

LOCATION.--Lat 38°44'06", long 108°09'40", in SE¼NE¼ sec.19, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020005, on left bank 90 ft (27 m) upstream from railroad bridge, 0.3 mi (0.5 km) upstream from mouth, and 5.0 mi (8.0 km) west of Delta.

DRAINAGE AREA.--242 mi$^2$ (627 km$^2$).

PERIOD OF RECORD.--October 1938 to September 1954, May 1976 to current year. Prior to April 1939, monthly discharge only, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 4,864.34 ft (1,482.651 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1948, at site 0.2 mi (0.3 km) upstream at datum 4.86 ft (1.481 m) higher.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Part of discharge is return flow from lands irrigated under lower end of Ironstone Canal from Uncompahgre River. Diversions for irrigation of a few hundred acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--20 years (water years 1939-54, 1977-80), 122 ft$^3$/s (3.455 m$^3$/s), 88,390 acre-ft/yr (109 hm$^3$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,950 ft$^3$/s (83.5 m$^3$/s) Aug. 5, 1945, gage height, 7.76 ft (2.365 m), site and datum then in use, from rating curve extended above 1,300 ft$^3$/s (37 m$^3$/s); minimum observed, 9.6 ft$^3$/s (0.27 m$^3$/s) Apr. 7, 1977 (discharge measurement).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 810 ft$^3$/s (23 m$^3$/s) and maximum (*):

| Date | Time | Discharge (ft$^3$/s) | Discharge (m$^3$/s) | Gage height (ft) | Gage height (m) | Date | Time | Discharge (ft$^3$/s) | Discharge (m$^3$/s) | Gage height (ft) | Gage height (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| May 12 | 0430 | 1,610 | 45.6 | 5.49 | 1.674 | May 24 | 0600 | *1,870 | 53.0 | 5.90 | 1.798 |

Minimum daily discharge, 19 ft$^3$/s (0.538 m$^3$/s) Jan. 23.

### DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 80 | 77 | 45 | 22 | 20 | 29 | 61 | 431 | 876 | 66 | 36 | 56 |
| 2 | 80 | 77 | 46 | 20 | 20 | 28 | 57 | 382 | 738 | 91 | 36 | 60 |
| 3 | 76 | 79 | 47 | 22 | 25 | 27 | 48 | 404 | 766 | 79 | 33 | 55 |
| 4 | 73 | 79 | 45 | 22 | 27 | 27 | 58 | 480 | 909 | 73 | 35 | 53 |
| 5 | 74 | 77 | 43 | 20 | 26 | 29 | 93 | 570 | 974 | 79 | 34 | 56 |
| 6 | 70 | 77 | 42 | 22 | 23 | 37 | 101 | 655 | 894 | 76 | 34 | 73 |
| 7 | 66 | 74 | 42 | 23 | 25 | 47 | 82 | 912 | 689 | 75 | 37 | 95 |
| 8 | 67 | 76 | 45 | 21 | 24 | 56 | 67 | 1050 | 617 | 92 | 32 | 109 |
| 9 | 73 | 74 | 46 | 22 | 21 | 54 | 61 | 1160 | 623 | 78 | 33 | 120 |
| 10 | 76 | 74 | 41 | 25 | 22 | 51 | 72 | 1090 | 615 | 61 | 30 | 121 |
| 11 | 80 | 74 | 32 | 24 | 24 | 35 | 97 | 1040 | 601 | 55 | 28 | 125 |
| 12 | 82 | 67 | 28 | 24 | 25 | 33 | 99 | 1240 | 540 | 72 | 31 | 112 |
| 13 | 82 | 66 | 27 | 24 | 28 | 32 | 65 | 726 | 472 | 91 | 39 | 107 |
| 14 | 82 | 64 | 28 | 26 | 31 | 31 | 41 | 579 | 387 | 92 | 40 | 114 |
| 15 | 84 | 67 | 29 | 32 | 31 | 31 | 71 | 504 | 325 | 82 | 46 | 115 |
| 16 | 86 | 68 | 30 | 30 | 37 | 30 | 91 | 403 | 288 | 80 | 48 | 108 |
| 17 | 84 | 70 | 31 | 29 | 34 | 30 | 115 | 704 | 245 | 72 | 47 | 96 |
| 18 | 84 | 72 | 31 | 27 | 32 | 23 | 127 | 714 | 221 | 54 | 47 | 93 |
| 19 | 86 | 76 | 31 | 25 | 52 | 20 | 142 | 785 | 205 | 45 | 38 | 92 |
| 20 | 94 | 69 | 31 | 24 | 59 | 24 | 149 | 958 | 171 | 49 | 33 | 93 |
| 21 | 96 | 52 | 29 | 23 | 36 | 26 | 170 | 1080 | 152 | 44 | 33 | 88 |
| 22 | 89 | 47 | 28 | 20 | 30 | 25 | 190 | 1460 | 143 | 47 | 39 | 88 |
| 23 | 89 | 47 | 28 | 19 | 34 | 27 | 223 | 1600 | 128 | 43 | 55 | 91 |
| 24 | 89 | 49 | 30 | 20 | 34 | 28 | 259 | 1580 | 112 | 38 | 81 | 92 |
| 25 | 83 | 51 | 26 | 23 | 32 | 20 | 209 | 961 | 99 | 43 | 88 | 88 |
| 26 | 80 | 47 | 25 | 30 | 31 | 22 | 211 | 706 | 86 | 65 | 67 | 79 |
| 27 | 80 | 42 | 25 | 31 | 30 | 25 | 231 | 610 | 86 | 53 | 70 | 73 |
| 28 | 82 | 38 | 25 | 29 | 30 | 40 | 255 | 668 | 81 | 48 | 67 | 77 |
| 29 | 80 | 41 | 25 | 22 | 30 | 46 | 340 | 867 | 70 | 43 | 64 | 72 |
| 30 | 79 | 44 | 23 | 23 | --- | 60 | 467 | 866 | 74 | 39 | 61 | 66 |
| 31 | 80 | --- | 23 | 22 | --- | 62 | --- | 890 | --- | 39 | 61 | --- |
| TOTAL | 2506 | 1915 | 1027 | 746 | 873 | 1055 | 4252 | 26075 | 12187 | 1964 | 1423 | 2667 |
| MEAN | 80.8 | 63.8 | 33.1 | 24.1 | 30.1 | 34.0 | 142 | 841 | 406 | 63.4 | 45.9 | 88.9 |
| MAX | 96 | 79 | 47 | 32 | 59 | 62 | 467 | 1600 | 974 | 92 | 88 | 125 |
| MIN | 66 | 38 | 23 | 19 | 20 | 20 | 41 | 382 | 70 | 38 | 28 | 53 |
| AC-FT | 4970 | 3800 | 2040 | 1480 | 1730 | 2090 | 8430 | 51720 | 24170 | 3900 | 2820 | 5290 |

CAL YR 1979 TOTAL 57941 MEAN 159 MAX 1770 MIN 16 AC-FT 114900
WTR YR 1980 TOTAL 56690 MEAN 155 MAX 1600 MIN 19 AC-FT 112400

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 TO JAN. 14.

## 09151500 ESCALANTE CREEK NEAR DELTA, CO

LOCATION.--Lat 38°45'24", long 108°15'34", in E½ sec.8, T.15 S., R.97 W., Sixth Principal Meridian, Delta County, Hydrologic Unit 14020005, on left bank just upstream from county bridge, 0.2 mi (0.3 km) upstream from mouth, and 10.5 mi (16.9 km) west of Delta.

DRAINAGE AREA.--209 mi$^2$ (541 km$^2$).

PERIOD OF RECORD.--April 1922 to September 1923, May 1976 to current year.

REVISED RECORDS.--WSP 1313: 1923 (monthly runoff).

GAGE.--Water-stage recorder. Altitude of gage is 4,810 ft (1,463 m), from topographic map. Prior to September 1923, nonrecording gage at different datum operated by State Engineer of Colorado.

REMARKS.--Records fair. Diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,050 ft$^3$/s (58.1 m$^3$/s) July 24, 1977, gage height, 8.54 ft (2.603 m), from floodmarks, from rating curve extended above 320 ft$^3$/s (9.1 m$^3$/s), on basis of slope-area measurement of peak flow; minimum daily, 0.02 ft$^3$/s (0.001 m$^3$/s) July 3, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,220 ft$^3$/s (34.6 m$^3$/s) at 0230 May 22, gage height, 7.07 ft (2.155 m); minimum daily, 0.28 ft$^3$/s (0.008 m$^3$/s) Oct. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.0 | 15 | 6.4 | 7.8 | 8.1 | 12 | 13 | 559 | 569 | 33 | 2.0 | 9.4 |
| 2 | 2.2 | 16 | 6.8 | 8.0 | 11 | 12 | 17 | 494 | 532 | 39 | 1.9 | 11 |
| 3 | 2.3 | 15 | 7.1 | 7.6 | 9.6 | 12 | 15 | 483 | 566 | 35 | 1.6 | 11 |
| 4 | 2.4 | 21 | 7.1 | 7.6 | 9.6 | 13 | 16 | 542 | 610 | 29 | 1.4 | 12 |
| 5 | 2.4 | 26 | 7.3 | 7.3 | 9.9 | 12 | 16 | 663 | 613 | 25 | .91 | 12 |
| 6 | 2.3 | 27 | 7.6 | 7.8 | 9.9 | 13 | 17 | 691 | 568 | 21 | .80 | 12 |
| 7 | 2.0 | 28 | 7.8 | 8.3 | 10 | 15 | 18 | 845 | 475 | 19 | .68 | 11 |
| 8 | 1.9 | 28 | 8.0 | 9.1 | 9.7 | 13 | 18 | 847 | 436 | 18 | .55 | 9.7 |
| 9 | 1.7 | 27 | 8.0 | 9.0 | 8.3 | 12 | 17 | 886 | 436 | 18 | 1.1 | 8.7 |
| 10 | 1.5 | 25 | 8.1 | 8.4 | 9.5 | 12 | 18 | 756 | 420 | 15 | 1.3 | 9.5 |
| 11 | 1.3 | 25 | 8.0 | 8.7 | 11 | 13 | 20 | 866 | 391 | 14 | 2.3 | 11 |
| 12 | 1.2 | 24 | 7.2 | 8.0 | 13 | 14 | 20 | 827 | 341 | 11 | 2.6 | 11 |
| 13 | 1.1 | 22 | 7.2 | 7.9 | 11 | 12 | 19 | 573 | 292 | 8.0 | 2.5 | 12 |
| 14 | 1.1 | 22 | 7.4 | 8.9 | 10 | 13 | 20 | 554 | 243 | 7.7 | 2.7 | 13 |
| 15 | .76 | 20 | 7.6 | 9.9 | 16 | 13 | 21 | 517 | 204 | 7.5 | 4.1 | 14 |
| 16 | .34 | 20 | 8.0 | 9.3 | 16 | 13 | 27 | 590 | 171 | 6.3 | 3.6 | 15 |
| 17 | .32 | 20 | 8.1 | 8.9 | 13 | 11 | 31 | 894 | 153 | 5.4 | 3.9 | 16 |
| 18 | .28 | 21 | 8.0 | 8.8 | 14 | 12 | 38 | 713 | 133 | 4.1 | 3.4 | 17 |
| 19 | .29 | 21 | 8.0 | 8.4 | 25 | 14 | 56 | 760 | 123 | 3.8 | 3.2 | 18 |
| 20 | .48 | 20 | 7.6 | 8.2 | 21 | 13 | 102 | 825 | 105 | 3.5 | 3.5 | 18 |
| 21 | 8.9 | 18 | 7.6 | 7.6 | 16 | 13 | 150 | 849 | 91 | 3.7 | 4.0 | 19 |
| 22 | 6.1 | 14 | 7.6 | 7.7 | 15 | 14 | 234 | 904 | 85 | 3.5 | 5.1 | 20 |
| 23 | 3.7 | 15 | 7.6 | 7.5 | 14 | 15 | 292 | 966 | 79 | 3.4 | 5.1 | 22 |
| 24 | 2.9 | 16 | 7.5 | 8.3 | 13 | 14 | 297 | 881 | 70 | 3.2 | 4.0 | 21 |
| 25 | 3.0 | 16 | 7.6 | 8.8 | 11 | 16 | 266 | 622 | 59 | 3.2 | 7.0 | 20 |
| 26 | 3.8 | 16 | 7.8 | 8.2 | 12 | 15 | 319 | 553 | 49 | 7.3 | 7.7 | 21 |
| 27 | 4.0 | 13 | 8.0 | 7.5 | 12 | 15 | 373 | 516 | 44 | 4.1 | 8.4 | 22 |
| 28 | 4.1 | 12 | 7.6 | 7.3 | 13 | 15 | 438 | 536 | 41 | 3.4 | 7.4 | 21 |
| 29 | 8.4 | 9.3 | 7.3 | 7.0 | 13 | 15 | 508 | 609 | 36 | 2.8 | 7.8 | 20 |
| 30 | 12 | 5.1 | 7.5 | 6.4 | --- | 14 | 602 | 599 | 32 | 2.5 | 8.6 | 20 |
| 31 | 17 | --- | 7.6 | 6.2 | --- | 15 | --- | 599 | --- | 2.2 | 9.5 | --- |
| TOTAL | 101.77 | 577.4 | 235.0 | 250.4 | 364.6 | 415 | 3998 | 21519 | 7967 | 362.6 | 118.64 | 457.3 |
| MEAN | 3.28 | 19.2 | 7.58 | 8.08 | 12.6 | 13.4 | 133 | 694 | 266 | 11.7 | 3.83 | 15.2 |
| MAX | 17 | 28 | 8.1 | 9.9 | 25 | 16 | 602 | 966 | 613 | 39 | 9.5 | 22 |
| MIN | .28 | 5.1 | 6.4 | 6.2 | 8.1 | 11 | 13 | 483 | 32 | 2.2 | .55 | 8.7 |
| AC-FT | 202 | 1150 | 466 | 497 | 723 | 823 | 7930 | 42680 | 15800 | 719 | 235 | 907 |

CAL YR 1979 TOTAL 29596.75 MEAN 81.1 MAX 836 MIN .18 AC-FT 58710
WTR YR 1980 TOTAL 36366.71 MEAN 99.4 MAX 966 MIN .28 AC-FT 72130

## 09152000 KANNAH CREEK NEAR WHITEWATER, CO

LOCATION.--Lat 38°57'42", long 108°13'47", in NW¼SW¼ sec.34, T.12 S., R.97 W., Mesa County, Hydrologic Unit 14020005, on right bank at downstream side of county bridge, 0.2 mi (0.3 km) downstream from intake of pipeline for Grand Junction water supply, and 12 mi (19 km) east of Whitewater.

DRAINAGE AREA.--61.9 mi² (160.3 km²).

PERIOD OF RECORD.--October 1917 to September 1921, September 1922 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1960, published as Kahnan Creek near Whitewater.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,060 ft (1,847 m), from topographic map. Prior to Sept. 30, 1932, nonrecording gage, and Sept. 30, 1932, to Oct. 14, 1935, water-stage recorder, at site 300 ft (91 m) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversion above station for municipal supply of Grand Junction and minor diversion by Raber ditch for irrigation of about 60 acres (243,000 m²) below station. Records of municipal supply furnished by Colorado Division of Water Resources and monthly figures are adjusted to show total flow of stream. Daily figures are for stream below city and Raber ditch diversions. Regulation by a few small reservoirs above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE (COMBINED FLOW).--62 years (water years 1918-21, 1923-80), 37.9 ft³/s (1.073 m³/s), 27,460 acre-ft/yr (33.9 hm³/yr).

EXTREMES (COMBINED FLOW) FOR PERIOD OF RECORD.--Maximum discharge observed, 1,640 ft³/s (46.4 m³/s) June 6, 1921, gage height, 4.5 ft (1.37 m), site and datum then in use, from rating curve extended above 700 ft³/s (20 m³/s); minimum daily, 3.4 ft³/s (0.096 m³/s) Nov. 27, 1976.

EXTREMES (COMBINED FLOW) FOR CURRENT YEAR.--Maximum discharge, 627 ft³/s (17.8 m³/s) at 2130 June 5, gage height, 2.38 ft (0.725 m); minimum daily, 4.0 ft³/s (0.113 m³/s) Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 8.5 | 1.7 | 1.4 | 1.0 | 1.0 | .60 | 34 | 332 | 44 | 31 | 23 |
| 2 | 17 | 9.0 | 1.7 | 1.4 | .60 | 1.0 | .50 | 31 | 310 | 46 | 30 | 22 |
| 3 | 15 | 10 | 1.7 | 1.3 | .30 | 1.0 | .70 | 30 | 384 | 42 | 30 | 21 |
| 4 | 14 | 8.7 | 1.7 | 1.3 | .30 | 1.0 | .70 | 32 | 354 | 37 | 30 | 19 |
| 5 | 12 | 8.7 | 1.7 | 1.3 | .30 | 1.0 | 1.1 | 37 | 366 | 34 | 30 | 18 |
| 6 | 12 | 8.7 | 1.6 | 1.3 | .30 | 1.0 | 1.7 | 36 | 349 | 33 | 30 | 17 |
| 7 | 11 | 9.1 | 1.6 | 1.3 | .30 | 1.0 | 2.0 | 58 | 434 | 33 | 30 | 17 |
| 8 | 8.7 | 8.7 | 1.6 | 1.2 | .30 | 1.0 | 1.9 | 65 | 408 | 34 | 28 | 18 |
| 9 | 9.1 | 8.7 | 1.5 | 1.2 | .14 | 1.0 | 1.8 | 51 | 427 | 32 | 27 | 22 |
| 10 | 7.9 | 8.3 | 1.7 | 1.2 | .20 | 1.0 | 2.3 | 41 | 402 | 32 | 26 | 24 |
| 11 | 7.5 | 8.3 | 1.7 | 1.2 | .28 | 1.1 | 2.0 | 44 | 327 | 32 | 21 | 24 |
| 12 | 7.9 | 7.0 | 1.1 | 1.1 | .30 | 1.0 | 1.6 | 44 | 305 | 32 | 23 | 24 |
| 13 | 6.2 | 6.5 | 1.2 | 1.2 | .11 | 1.0 | 1.7 | 39 | 310 | 32 | 24 | 23 |
| 14 | 4.6 | 8.0 | 1.6 | 1.6 | .11 | .90 | 2.8 | 36 | 270 | 31 | 27 | 21 |
| 15 | 3.2 | 6.0 | 1.3 | 1.2 | .15 | .80 | 5.0 | 33 | 219 | 30 | 27 | 19 |
| 16 | 2.8 | 1.8 | 1.6 | 1.1 | .25 | .60 | 6.6 | 33 | 174 | 28 | 27 | 18 |
| 17 | 3.2 | 1.1 | 1.4 | 1.1 | .90 | .50 | 7.5 | 62 | 149 | 26 | 26 | 10 |
| 18 | 3.8 | 2.5 | 1.7 | 1.1 | .60 | .40 | 8.3 | 48 | 135 | 24 | 26 | 10 |
| 19 | 3.8 | 1.7 | .08 | 1.0 | .90 | .30 | 13 | 44 | 126 | 23 | 26 | 9.7 |
| 20 | 4.0 | 1.6 | .80 | .20 | 2.2 | .30 | 18 | 53 | 114 | 21 | 26 | 9.1 |
| 21 | 5.4 | .70 | .50 | .60 | 2.2 | .40 | 30 | 82 | 102 | 19 | 24 | 9.1 |
| 22 | 4.3 | 1.0 | .80 | 1.7 | 2.2 | .70 | 30 | 114 | 85 | 20 | 24 | 7.0 |
| 23 | 5.8 | 1.4 | 1.1 | .90 | 2.2 | .70 | 26 | 160 | 72 | 24 | 24 | 7.9 |
| 24 | 12 | 1.7 | .90 | 1.3 | 1.7 | .70 | 22 | 138 | 62 | 33 | 27 | 9.7 |
| 25 | 11 | 1.6 | 1.4 | 1.3 | 2.0 | .80 | 22 | 114 | 55 | 33 | 26 | 9.1 |
| 26 | 11 | 1.7 | 1.5 | 1.5 | 2.0 | .70 | 22 | 129 | 51 | 32 | 23 | 8.3 |
| 27 | 11 | 1.7 | 1.5 | 1.6 | .80 | .70 | 20 | 146 | 50 | 31 | 18 | 7.9 |
| 28 | 11 | 1.5 | 1.4 | 1.4 | 1.1 | .60 | 21 | 194 | 46 | 32 | 17 | 7.9 |
| 29 | 12 | 1.6 | 1.4 | 1.2 | 1.1 | .60 | 22 | 210 | 42 | 32 | 24 | 6.6 |
| 30 | 12 | 1.6 | 1.4 | 1.4 | --- | .60 | 39 | 228 | 42 | 32 | 24 | 6.2 |
| 31 | 8.0 | --- | 1.4 | 1.3 | --- | .60 | --- | 260 | --- | 32 | 24 | --- |
| TOTAL | 275.2 | 147.40 | 42.28 | 37.90 | 24.84 | 24.00 | 333.80 | 2626 | 6502 | 966 | 798 | 449.5 |
| MEAN | 8.88 | 4.91 | 1.36 | 1.22 | .86 | .77 | 11.1 | 84.7 | 217 | 31.2 | 25.7 | 15.0 |
| MAX | 18 | 10 | 1.7 | 1.7 | 2.2 | 1.1 | 39 | 260 | 434 | 46 | 31 | 24 |
| MIN | 2.8 | .70 | .08 | .20 | .11 | .30 | .50 | 30 | 42 | 19 | 17 | 6.2 |
| AC-FT | 546 | 292 | 84 | 75 | 49 | 48 | 662 | 5210 | 12900 | 1920 | 1580 | 892 |

CAL YR 1979 TOTAL 10726.66 MEAN 29.4 MAX 378 MIN .08 AC-FT 21280
WTR YR 1980 TOTAL 12226.92 MEAN 33.4 MAX 434 MIN .08 AC-FT 24250

## 09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO

LOCATION.--Lat 38°59'00", long 108°27'00", near center of sec.14, T.2 S., R.1 E., Ute Meridian, Mesa County, Hydrologic Unit 14020005, on right bank 180 ft (55 m) upstream from bridge on State Highway 141, 0.4 mi (0.6 km) downstream from Whitewater Creek, 0.5 mi (0.8 km) south of Whitewater, and 8 mi (13 km) southeast of Grand Junction.

DRAINAGE AREA.--7,928 mi² (20,534 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to December 1895 (gage heights only), October 1896 to September 1899, October 1901 to October 1906, October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Whitewater" 1901-6.

REVISED RECORDS.--WSP 509: Drainage area at former site. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,628.12 ft (1,410.651 m), National Geodetic Vertical Datum of 1929. See WSP 1733 or 1924 for history of changes prior to October 1959.

REMARKS.--Records good. Records show flow that enters Colorado River from Gunnison River basin except for about 60 ft³/s (1.7 m³/s) diverted below gage during irrigation season. Natural flow of river affected by diversions for irrigation of about 233,000 acres (943 km²) above station, storage reservoirs, and return flow from irrigated lands.

AVERAGE DISCHARGE.--72 years (water years 1897-99, 1902-6, 1917-80), 2,537 ft³/s (71.85 m³/s), 1,838,000 acre-ft/yr (2,270 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 35,700 ft³/s (1,010 m³/s) May 23, 1920, gage height, 14.95 ft (4.557 m), site and datum then in use, from rating curve extended above 22,000 ft³/s (623 m³/s); minimum daily, 106 ft³/s (3.00 m³/s) July 20, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,100 ft³/s (399 m³/s) at 1300 May 23, gage height, 10.00 ft (3.048 m); minimum daily, 850 ft³/s (24.1 m³/s) Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2010 | 1380 | 2030 | 2280 | 2180 | 2320 | 2490 | 8180 | 8130 | 4620 | 1120 | 910 |
| 2 | 2040 | 1730 | 2030 | 2340 | 2210 | 2300 | 2490 | 7570 | 7700 | 4740 | 1130 | 1130 |
| 3 | 2050 | 1940 | 2610 | 2320 | 2280 | 2280 | 2450 | 7050 | 7520 | 4720 | 1110 | 1140 |
| 4 | 2020 | 1290 | 2640 | 2310 | 2290 | 2310 | 2480 | 7160 | 6820 | 4460 | 1110 | 1040 |
| 5 | 1570 | 1260 | 2670 | 2290 | 2290 | 2300 | 2400 | 7720 | 8090 | 4240 | 1140 | 1020 |
| 6 | 2140 | 1230 | 2620 | 2310 | 2270 | 2260 | 2420 | 7900 | 8850 | 3970 | 1350 | 1050 |
| 7 | 2090 | 1340 | 2570 | 2320 | 2290 | 2560 | 2380 | 9270 | 8120 | 3730 | 1290 | 1030 |
| 8 | 2050 | 1670 | 2560 | 2310 | 2290 | 2600 | 2320 | 10500 | 7510 | 3380 | 1180 | 994 |
| 9 | 1950 | 2410 | 2550 | 2310 | 2190 | 2580 | 2200 | 10900 | 7830 | 3170 | 1110 | 1210 |
| 10 | 2020 | 2410 | 2540 | 2360 | 2190 | 2540 | 2100 | 10000 | 8350 | 2640 | 1100 | 981 |
| 11 | 1580 | 2450 | 2540 | 2410 | 2170 | 2440 | 2040 | 9560 | 9140 | 2120 | 1120 | 1030 |
| 12 | 1410 | 2720 | 2420 | 2350 | 2200 | 2440 | 2050 | 10200 | 9800 | 1870 | 1030 | 1830 |
| 13 | 1650 | 2580 | 2300 | 2550 | 2260 | 2450 | 2270 | 8560 | 9390 | 1960 | 1120 | 1320 |
| 14 | 2090 | 1670 | 2270 | 2540 | 2300 | 2440 | 2270 | 7830 | 8740 | 2170 | 1130 | 2030 |
| 15 | 2200 | 1180 | 2310 | 2610 | 2330 | 2460 | 2570 | 7330 | 8040 | 1930 | 1110 | 1450 |
| 16 | 2320 | 1290 | 2320 | 2550 | 2430 | 2440 | 2680 | 7220 | 7290 | 1630 | 1190 | 2300 |
| 17 | 1680 | 1350 | 2340 | 1840 | 2350 | 2400 | 2750 | 9190 | 6830 | 1510 | 1160 | 2320 |
| 18 | 1260 | 1320 | 2330 | 1550 | 2330 | 2380 | 3000 | 9150 | 6590 | 1440 | 1240 | 2030 |
| 19 | 1280 | 1400 | 2330 | 2200 | 2680 | 2380 | 3430 | 8580 | 6700 | 1340 | 1020 | 1550 |
| 20 | 1410 | 1390 | 2300 | 2370 | 2700 | 2350 | 4570 | 9330 | 6210 | 1310 | 1080 | 911 |
| 21 | 1580 | 1330 | 2340 | 2340 | 2620 | 2390 | 5620 | 10400 | 5750 | 1350 | 1110 | 1010 |
| 22 | 1900 | 1310 | 2350 | 2310 | 2430 | 2450 | 6140 | 11600 | 5530 | 1260 | 1110 | 954 |
| 23 | 1870 | 1210 | 2350 | 2130 | 2390 | 2500 | 6490 | 12900 | 5370 | 1170 | 1080 | 987 |
| 24 | 1730 | 1230 | 2290 | 2130 | 2350 | 2550 | 6770 | 13100 | 4950 | 1140 | 1030 | 1440 |
| 25 | 1500 | 1280 | 2330 | 2260 | 2290 | 2540 | 5990 | 10900 | 4580 | 1120 | 976 | 1240 |
| 26 | 1470 | 1270 | 2320 | 2330 | 2290 | 2270 | 5930 | 9270 | 4440 | 1210 | 1560 | 850 |
| 27 | 1400 | 1260 | 2400 | 2300 | 2300 | 2410 | 5910 | 8300 | 4430 | 1200 | 1250 | 937 |
| 28 | 1380 | 1220 | 2370 | 2360 | 2310 | 2110 | 6100 | 8090 | 4280 | 1170 | 1460 | 1270 |
| 29 | 1390 | 1470 | 2300 | 2290 | 2310 | 2640 | 6460 | 8500 | 3910 | 1140 | 923 | 1210 |
| 30 | 1410 | 2050 | 2300 | 2290 | --- | 2640 | 7430 | 8050 | 3790 | 1130 | 962 | 1130 |
| 31 | 1400 | --- | 2320 | 2230 | --- | 2470 | --- | 8080 | --- | 1120 | 932 | --- |
| TOTAL | 53850 | 47640 | 73920 | 71140 | 67520 | 75200 | 114200 | 282390 | 204680 | 69960 | 35233 | 38304 |
| MEAN | 1737 | 1588 | 2385 | 2295 | 2328 | 2426 | 3807 | 9109 | 6823 | 2257 | 1137 | 1277 |
| MAX | 2320 | 2720 | 2670 | 2610 | 2700 | 2640 | 7430 | 13100 | 9800 | 4740 | 1560 | 2320 |
| MIN | 1260 | 1180 | 2030 | 1550 | 2170 | 2110 | 2040 | 7050 | 3790 | 1120 | 923 | 850 |
| AC-FT | 106800 | 94490 | 146600 | 141100 | 133900 | 149200 | 226500 | 560100 | 406000 | 138800 | 69880 | 75980 |

CAL YR 1979 TOTAL 1211230 MEAN 3318 MAX 13200 MIN 1180 AC-FT 2402000
WTR YR 1980 TOTAL 1134037 MEAN 3098 MAX 13100 MIN 850 AC-FT 2249000

## 09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued
(Irrigation network station)
(National stream-quality accounting network station)

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1931 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1935 to September 1974, September 1975 to current year.
WATER TEMPERATURES: April 1949 to September 1974, September 1975 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1975.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,000 micromhos on several days during July and September 1974; minimum, 194 micromhos June 6, 1979.
WATER TEMPERATURES: Maximum, 30.0°C Aug. 13, 1958; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,380 micromhos Oct. 27; minimum, 197 micromhos Dec. 3.
WATER TEMPERATURES: Maximum recorded, 25.5°C July 16, 21, 22, 24; minimum recorded, 0.5°C December 15.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | TUR-BID-ITY (NTU) | OXYGEN, DIS-SOLVED (MG/L) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | HARD-NESS (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>18... | 1300 | 1280 | 1200 | 8.0 | 13.0 | 7.6 | 9.5 | K16 | 54 | 570 |
| NOV<br>19... | 1100 | 1410 | 1200 | 8.2 | 5.0 | -- | 10.6 | -- | -- | 530 |
| DEC<br>18... | 1200 | 2300 | 700 | 8.2 | 2.0 | 3.6 | 12.1 | -- | 51 | 260 |
| JAN<br>23... | 1200 | 2160 | 620 | 8.4 | 2.0 | 4.0 | 12.6 | K8 | 33 | 260 |
| MAR<br>07... | 1200 | 2630 | 640 | 8.2 | 4.5 | 17 | 11.8 | K9 | K23 | 240 |
| APR<br>10... | 1400 | 2190 | 610 | 8.2 | 9.5 | 14 | 9.8 | 26 | 60 | 240 |
| MAY<br>12... | 1240 | 10600 | 340 | 7.9 | 8.0 | 110 | 9.4 | 180 | 1300 | 140 |
| JUN<br>24... | 1130 | 4560 | 470 | 7.9 | 15.5 | 56 | 8.0 | -- | 160 | 180 |
| JUL<br>21... | 1500 | 1360 | 1080 | 8.6 | 21.5 | 14 | 7.8 | -- | K60 | 460 |
| AUG<br>12... | 1300 | 1090 | 1080 | 8.3 | 19.5 | 4.0 | 7.8 | -- | K4 | 420 |

| DATE | HARD-NESS, NONCAR-BONATE (MG/L CACO3) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>18... | 410 | 150 | 47 | 88 | 1.6 | 4.5 | 160 | 560 | 9.4 | .5 |
| NOV<br>19... | 360 | 130 | 49 | 92 | 1.7 | 3.3 | 170 | 520 | 14 | .5 |
| DEC<br>18... | 140 | 67 | 23 | 40 | 1.1 | 2.7 | 120 | 220 | 5.5 | .3 |
| JAN<br>23... | 150 | 65 | 24 | 41 | 1.1 | 2.7 | 110 | 210 | 5.9 | .3 |
| MAR<br>07... | 130 | 58 | 23 | 44 | 1.2 | 2.8 | 110 | 210 | 6.4 | .3 |
| APR<br>10... | 130 | 60 | 21 | 36 | 1.0 | 2.6 | 110 | 200 | 6.3 | .3 |
| MAY<br>12... | 64 | 38 | 11 | 18 | .7 | 2.3 | 76 | 87 | 3.0 | .2 |
| JUN<br>24... | 87 | 49 | 15 | 24 | .8 | 2.3 | 97 | 140 | 5.1 | .2 |
| JUL<br>21... | 300 | 120 | 39 | 67 | 1.4 | 4.2 | 160 | 400 | 9.2 | .7 |
| AUG<br>12... | 300 | 110 | 36 | 65 | 1.4 | 3.5 | 120 | 410 | 9.2 | .5 |

## 09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 18... | 14 | 994 | 976 | 1.35 | 3440 | 1.4 | 1.3 | .020 | .93 | .95 |
| NOV | | | | | | | | | | |
| 19... | 13 | -- | 924 | 1.26 | 3520 | 1.7 | -- | .040 | .37 | .41 |
| DEC | | | | | | | | | | |
| 18... | 12 | 473 | 446 | .64 | 2940 | .76 | .71 | .010 | .40 | .41 |
| JAN | | | | | | | | | | |
| 23... | 13 | 449 | 431 | .61 | 2620 | .59 | .59 | .020 | .77 | .79 |
| MAR | | | | | | | | | | |
| 07... | 11 | 446 | 424 | .61 | 3170 | .56 | .47 | .000 | 1.2 | 1.2 |
| APR | | | | | | | | | | |
| 10... | 11 | 414 | 405 | .56 | 2450 | .32 | .32 | .080 | .46 | .54 |
| MAY | | | | | | | | | | |
| 12... | 11 | 229 | 217 | .31 | 6550 | .25 | .27 | .070 | .82 | .89 |
| JUN | | | | | | | | | | |
| 24... | 13 | 379 | 309 | .52 | 4670 | .47 | .42 | .050 | .69 | .74 |
| JUL | | | | | | | | | | |
| 21... | 14 | 815 | 756 | 1.11 | 2990 | 1.3 | 1.3 | .000 | .96 | .96 |
| AUG | | | | | | | | | | |
| 12... | 12 | 807 | 723 | 1.10 | 2380 | 1.2 | 1.0 | .150 | .48 | .63 |

| DATE | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | PHOS-PHORUS, TOTAL (MG/L AS P) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) | CARBON, ORGANIC TOTAL (MG/L AS C) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) | PHYTO-PLANK-TON, TOTAL (CELLS PER ML) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 18... | .83 | 2.4 | .020 | .010 | 10 | 30 | 0 | -- | 4.1 | -- |
| NOV | | | | | | | | | | |
| 19... | -- | 2.1 | .010 | -- | <10 | -- | -- | 7.2 | -- | 1400 |
| DEC | | | | | | | | | | |
| 18... | .35 | 1.2 | .000 | .000 | -- | -- | -- | 8.8 | -- | -- |
| JAN | | | | | | | | | | |
| 23... | .67 | 1.4 | .040 | .020 | -- | -- | -- | 4.3 | -- | -- |
| MAR | | | | | | | | | | |
| 07... | .33 | 1.8 | .030 | .000 | 20 | 20 | 0 | -- | 3.2 | -- |
| APR | | | | | | | | | | |
| 10... | .47 | .86 | .040 | .020 | -- | -- | 0 | 5.5 | -- | -- |
| MAY | | | | | | | | | | |
| 12... | .82 | 1.1 | .180 | .040 | -- | -- | 0 | 15 | -- | -- |
| JUN | | | | | | | | | | |
| 24... | .73 | 1.2 | .160 | .060 | 10 | 10 | 0 | -- | 4.1 | -- |
| JUL | | | | | | | | | | |
| 21... | .92 | 2.3 | .160 | .120 | -- | -- | 0 | 6.0 | -- | 3100 |
| AUG | | | | | | | | | | |
| 12... | .55 | 1.8 | .120 | .010 | 20 | 20 | 0 | -- | 5.5 | 2500 |

## 09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) | BARIUM, DIS-SOLVED (UG/L AS BA) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) | COBALT, DIS-SOLVED (UG/L AS CO) | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>18... | 1300 | 1 | 1 | 200 | 60 | 6 | 10 | 0 | 0 | 0 | <3 | 1 |
| MAR<br>07... | 1200 | 2 | 2 | 100 | 100 | 0 | <1 | 0 | 0 | 0 | <3 | 5 |
| JUN<br>24... | 1130 | 2 | 1 | 100 | 50 | 1 | 2 | 0 | 0 | 1 | <3 | 12 |
| AUG<br>12... | 1300 | 2 | 3 | 100 | 50 | 0 | <1 | 0 | 10 | 0 | <3 | 5 |

| DATE | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | LEAD, DIS-SOLVED (UG/L AS PB) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM, TOTAL (UG/L AS SE) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | ZINC, DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>18... | 0 | 380 | 79 | 71 | 50 | .1 | .0 | 11 | 11 | 0 | 10 | 10 |
| MAR<br>07... | 1 | 440 | 2 | 0 | 40 | .0 | .0 | 5 | 5 | 0 | 30 | 20 |
| JUN<br>24... | 7 | 2700 | 9 | 3 | 110 | .0 | .0 | 4 | 3 | 0 | 40 | 3 |
| AUG<br>12... | 2 | 200 | 2 | 1 | 40 | .0 | .0 | 9 | 9 | 0 | 20 | 4 |

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1280 | 967 | 710 | 681 | 652 | 610 | 657 | 400 | 314 | 513 | 1080 | 1110 |
| 2 | 1270 | 958 | 565 | 670 | 669 | 620 | 652 | 417 | 327 | 535 | 1080 | 1100 |
| 3 | 1270 | 992 | 306 | 684 | 614 | 620 | 646 | 393 | 335 | 613 | 1080 | 1090 |
| 4 | 1260 | 1010 | 489 | 696 | 620 | 630 | 640 | 374 | 342 | 682 | 1080 | 1170 |
| 5 | 1260 | 1040 | 588 | 716 | 630 | 630 | 640 | 360 | 344 | 717 | 1080 | 1200 |
| 6 | 1260 | 1060 | 576 | 745 | 640 | 640 | 631 | 360 | 328 | 732 | 1090 | 1200 |
| 7 | 1250 | 1080 | 776 | 742 | 620 | 640 | 626 | 360 | 331 | 719 | 1090 | 1220 |
| 8 | 1250 | 1130 | 700 | 782 | 620 | 617 | 620 | 394 | 344 | 678 | 1080 | 1230 |
| 9 | 1240 | 1160 | 645 | 790 | 680 | 625 | 610 | 412 | 356 | 669 | 1080 | 1230 |
| 10 | 1240 | 1100 | 610 | 827 | 661 | 635 | 625 | 372 | 359 | 682 | 1060 | 1230 |
| 11 | 1230 | 1080 | 640 | 866 | 648 | 621 | 624 | 336 | 354 | 689 | 1070 | 1220 |
| 12 | 1230 | 1030 | 654 | 864 | 670 | 621 | 672 | 349 | 345 | 695 | 1060 | 1230 |
| 13 | 1220 | 1010 | 641 | 874 | 615 | 630 | 624 | 312 | 336 | 700 | 1050 | 1220 |
| 14 | 1220 | 991 | 648 | 943 | 620 | 620 | 595 | 330 | 323 | 706 | 1050 | 1200 |
| 15 | 1210 | 958 | 630 | 1020 | 626 | 602 | 580 | 341 | 340 | 716 | 1040 | 1160 |
| 16 | 1210 | 932 | 627 | 1050 | 701 | 599 | 563 | 345 | 350 | 719 | 1050 | 1120 |
| 17 | 1200 | 912 | 617 | 970 | 683 | 594 | 554 | 350 | 370 | 800 | 1030 | 1090 |
| 18 | 1200 | 1040 | 634 | 1000 | 655 | 583 | 530 | 370 | 380 | 822 | 1030 | 1050 |
| 19 | 1200 | 1180 | 633 | 781 | 630 | 602 | 506 | 342 | 400 | 900 | 1040 | 1070 |
| 20 | 1200 | 1250 | 640 | 670 | 620 | 607 | 488 | 335 | 410 | 950 | 1020 | 1100 |
| 21 | 1200 | 1210 | 653 | 650 | 650 | 598 | 466 | 323 | 430 | 1080 | 1020 | 1090 |
| 22 | 1200 | 1190 | 660 | 632 | 660 | 599 | 445 | 317 | 440 | 1060 | 1030 | 1080 |
| 23 | 1190 | 1190 | 661 | 625 | 650 | 610 | 419 | 319 | 450 | 1060 | 1010 | 1070 |
| 24 | 1210 | 1180 | 670 | 640 | 670 | 608 | 402 | 311 | 470 | 1080 | 1010 | 1060 |
| 25 | 1230 | 1200 | 680 | 624 | 670 | 606 | 384 | 314 | 493 | 1080 | 1000 | 1050 |
| 26 | 1270 | 1350 | 645 | 640 | 630 | 600 | 376 | 324 | 492 | 1080 | 1010 | 1050 |
| 27 | 1300 | 1280 | 630 | 628 | 620 | 635 | 360 | 322 | 489 | 1090 | 1010 | 1050 |
| 28 | 1260 | 1200 | 640 | 638 | 610 | 678 | 350 | 314 | 483 | 1080 | 1010 | 1050 |
| 29 | 1190 | 832 | 658 | 620 | 600 | 673 | 348 | 310 | 496 | 1080 | 1070 | 1050 |
| 30 | 1050 | 788 | 660 | 620 | --- | 678 | 364 | 310 | 524 | 1090 | 1080 | 1050 |
| 31 | 1000 | --- | 663 | 668 | --- | 662 | --- | 322 | --- | 1090 | 1100 | --- |

## 09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | | | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | --- | --- | | | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | --- | --- | | | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | --- | --- | | | --- | --- | --- | --- | --- | --- | --- | --- |
| 5 | --- | --- | | | --- | --- | --- | --- | --- | --- | --- | --- |
| 6 | --- | --- | | | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 | --- | --- | | | --- | --- | 6.0 | 3.5 | --- | --- | --- | --- |
| 8 | --- | --- | | | --- | --- | 6.5 | 3.5 | --- | --- | 11.0 | 5.0 |
| 9 | --- | --- | | | --- | --- | 7.0 | 3.5 | 5.5 | 2.0 | 8.5 | 5.5 |
| 10 | --- | --- | | | --- | --- | 7.5 | 5.5 | 4.5 | 1.5 | 8.0 | 6.0 |
| 11 | --- | --- | | | 4.5 | 2.0 | 7.0 | 5.0 | 4.5 | 1.5 | 6.5 | 6.0 |
| 12 | --- | --- | | | 3.0 | 1.5 | 7.5 | 6.5 | 4.5 | 1.5 | 6.0 | 4.5 |
| 13 | --- | --- | | | 3.0 | 1.0 | --- | --- | 5.5 | 2.0 | 7.5 | 4.5 |
| 14 | --- | --- | | | 3.5 | 1.0 | --- | --- | 6.0 | 2.5 | 8.0 | 5.0 |
| 15 | --- | --- | | | 3.0 | .5 | --- | --- | --- | --- | 9.0 | 6.0 |
| 16 | --- | --- | | | 2.5 | 1.0 | --- | --- | --- | --- | 7.5 | 5.5 |
| 17 | --- | --- | | | 3.0 | 1.0 | --- | --- | --- | --- | 6.0 | 3.5 |
| 18 | --- | --- | | | --- | 1.5 | --- | --- | --- | --- | 7.0 | 4.0 |
| 19 | --- | --- | | | --- | --- | --- | --- | --- | --- | 8.5 | 5.5 |
| 20 | --- | --- | | | 5.0 | 2.5 | 4.5 | 3.5 | --- | --- | 9.0 | 6.0 |
| 21 | --- | --- | | | --- | --- | 4.5 | 3.0 | --- | --- | 9.0 | 6.5 |
| 22 | 11.0 | 9.5 | | | --- | --- | 3.5 | 2.0 | --- | --- | 8.0 | 5.5 |
| 23 | --- | --- | | | --- | --- | 3.0 | 1.0 | 6.0 | 5.0 | 6.0 | 4.5 |
| 24 | --- | --- | | | --- | --- | 3.0 | 1.0 | 6.0 | 4.0 | 6.5 | 5.0 |
| 25 | --- | --- | | | --- | --- | 4.5 | 2.5 | 5.5 | 3.5 | 6.5 | 5.0 |
| 26 | --- | --- | | | --- | --- | 4.5 | 2.5 | 5.5 | 2.5 | --- | --- |
| 27 | --- | --- | | | --- | --- | 4.5 | 2.0 | 6.5 | 3.0 | --- | --- |
| 28 | --- | --- | | | --- | --- | --- | --- | 6.5 | 4.0 | --- | --- |
| 29 | --- | --- | | | --- | --- | --- | --- | --- | --- | --- | --- |
| 30 | --- | --- | | | --- | --- | --- | --- | --- | --- | --- | --- |
| 31 | --- | --- | | | --- | --- | --- | --- | --- | --- | --- | --- |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | --- | --- | --- | --- | 20.0 | 18.0 | --- | --- | 20.5 | 16.0 |
| 2 | --- | --- | 9.5 | 8.5 | --- | --- | 19.0 | 18.0 | --- | --- | 21.0 | 17.5 |
| 3 | --- | --- | 9.5 | 8.0 | --- | --- | 20.5 | 18.5 | --- | --- | 21.5 | 18.0 |
| 4 | --- | --- | 9.5 | 8.5 | --- | --- | 20.5 | 18.5 | --- | --- | 22.0 | 18.5 |
| 5 | --- | --- | 9.5 | 8.5 | --- | --- | 20.0 | 18.0 | --- | --- | 22.0 | 19.0 |
| 6 | --- | --- | --- | --- | --- | --- | 19.5 | 17.5 | --- | --- | 21.5 | 19.5 |
| 7 | --- | --- | 9.5 | 8.5 | --- | --- | 19.5 | 18.5 | --- | --- | 22.0 | 19.5 |
| 8 | --- | --- | 11.5 | 8.0 | --- | --- | 20.5 | 18.0 | --- | --- | 21.5 | 20.0 |
| 9 | --- | --- | 12.0 | 8.5 | --- | --- | 23.0 | 20.0 | --- | --- | 20.5 | 19.0 |
| 10 | 10.5 | 8.5 | 9.5 | 8.5 | --- | --- | 22.5 | 21.0 | --- | --- | 19.5 | 18.0 |
| 11 | 8.5 | 6.5 | 9.5 | 8.0 | --- | --- | 24.0 | 20.5 | --- | --- | 19.5 | 16.5 |
| 12 | 8.5 | 5.0 | 8.0 | 6.0 | --- | --- | 24.5 | 21.5 | 21.5 | 19.5 | 20.0 | 17.5 |
| 13 | 9.0 | 5.5 | 7.0 | 5.0 | --- | --- | 22.5 | 21.0 | --- | --- | 20.0 | 17.5 |
| 14 | 10.5 | 6.5 | 8.0 | 7.0 | 15.5 | 14.5 | 22.5 | 19.5 | --- | --- | 19.5 | 16.5 |
| 15 | 11.0 | 8.0 | 9.0 | 8.0 | 15.5 | 14.0 | 24.0 | 20.0 | --- | --- | 19.5 | 16.0 |
| 16 | 10.5 | 7.5 | 9.5 | 7.5 | 16.0 | 14.5 | 25.5 | 20.0 | --- | --- | 20.5 | 17.0 |
| 17 | 10.5 | 7.5 | 10.0 | 8.5 | 16.5 | 14.5 | --- | --- | --- | --- | 19.5 | 17.0 |
| 18 | 11.0 | 7.5 | 10.0 | 8.5 | 17.0 | 15.0 | --- | --- | --- | --- | 19.0 | 16.0 |
| 19 | 11.5 | 8.5 | 10.0 | 9.5 | 17.5 | 15.5 | --- | --- | --- | --- | 20.0 | 16.0 |
| 20 | 11.0 | 9.0 | 10.5 | 9.5 | 17.5 | 15.0 | --- | --- | --- | --- | 20.0 | 17.5 |
| 21 | 10.5 | 8.0 | 12.0 | 10.5 | 17.5 | 15.5 | 25.5 | --- | --- | --- | 19.0 | 16.5 |
| 22 | 10.0 | 7.0 | 12.5 | 10.5 | 17.5 | 15.0 | 25.5 | 22.0 | --- | --- | 17.5 | 14.5 |
| 23 | 9.0 | 7.5 | 11.5 | 10.5 | 17.5 | 15.5 | 25.0 | 22.0 | --- | --- | 17.5 | 14.5 |
| 24 | 9.0 | 6.5 | 11.5 | 9.0 | 17.5 | 15.5 | 25.5 | 22.0 | --- | --- | 17.5 | 14.0 |
| 25 | 8.0 | 6.0 | 10.0 | 8.5 | 18.0 | 15.5 | 24.0 | 22.0 | --- | --- | 17.5 | 14.0 |
| 26 | 9.0 | 7.0 | 10.5 | 10.0 | 18.5 | 16.0 | 25.0 | 21.5 | --- | --- | 17.5 | 14.0 |
| 27 | 9.0 | 7.0 | 11.0 | 10.0 | 19.0 | 16.5 | 24.5 | 21.5 | --- | --- | 18.0 | 14.5 |
| 28 | 9.5 | 7.0 | --- | --- | 19.0 | 16.0 | --- | --- | --- | --- | 18.5 | 15.5 |
| 29 | 9.0 | 6.5 | --- | --- | 20.0 | 17.0 | --- | --- | 21.5 | 19.0 | 18.0 | 15.5 |
| 30 | 9.0 | 6.5 | --- | --- | 20.5 | 18.5 | --- | --- | 20.5 | 17.5 | 18.0 | 15.0 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | 19.5 | 17.5 | --- | --- |

## 09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

### SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 19... | 1130 | 1410 | 78 | 297 | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 18... | 1500 | 2300 | 22 | 137 | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 23... | 1400 | 2160 | 13 | 76 | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 05... | 0800 | 2340 | 20 | 126 | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 10... | 1400 | 2190 | 77 | 455 | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 12... | 1430 | 10600 | 856 | 24500 | 29 | 37 | 51 | 75 | 90 | 1 | 100 |
| JUN | | | | | | | | | | | |
| 24... | 1215 | 4560 | 247 | 3040 | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | |
| 21... | 1400 | 1360 | 75 | 275 | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 12... | 1300 | 1090 | 27 | 79 | -- | -- | -- | -- | -- | -- | -- |

## 09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

### PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO AUGUST 1980

| DATE | NOV 19,79 | JUL 21,80 | AUG 12,80 |
|---|---|---|---|
| TIME | 1100 | 1500 | 1300 |
| TOTAL CELLS/ML | 1400 | 3100 | 2500 |
| DIVERSITY: DIVISION | 0.4 | 1.5 | 1.5 |
| .CLASS | 0.4 | 1.5 | 1.5 |
| ..ORDER | 0.0 | 1.8 | 1.9 |
| ...FAMILY | 0.0 | 2.3 | 3.2 |
| ....GENUS | 0.0 | 2.3 | 3.3 |

| ORGANISM | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT |
|---|---|---|---|---|---|---|
| CHLOROPHYTA (GREEN ALGAE) | | | | | | |
| .CHLOROPHYCEAE | | | | | | |
| ..CHLOROCOCCALES | | | | | | |
| ...COELASTRACEAE | | | | | | |
| ....COELASTRUM | -- | - | -- | - | 130 | 5 |
| ...MICRACTINIACEAE | | | | | | |
| ....GOLENKINIA | -- | - | -- | - | 34 | 1 |
| ....MICRACTINIUM | -- | - | -- | - | 67 | 3 |
| ...OOCYSTACEAE | | | | | | |
| ....ANKISTRODESMUS | 11 | 1 | 17 | 1 | 180 | 7 |
| ....OOCYSTIS | -- | - | 17 | 1 | 17 | 1 |
| ...SCENEDESMACEAE | | | | | | |
| ....SCENEDESMUS | 54 | 4 | 210 | 7 | 270 | 11 |
| ..VOLVOCALES | | | | | | |
| ...CHLAMYDOMONADACEAE | | | | | | |
| ....CHLAMYDOMONAS | -- | - | 210 | 7 | -- | - |
| CHRYSOPHYTA | | | | | | |
| .BACILLARIOPHYCEAE | | | | | | |
| ..CENTRALES | | | | | | |
| ...COSCINODISCACEAE | | | | | | |
| ....CYCLOTELLA | 11 | 1 | 140 | 4 | 200 | 8 |
| ....MELOSIRA | 22 | 2 | -- | - | -- | - |
| ..PENNALES | | | | | | |
| ...ACHNANTHACEAE | | | | | | |
| ....ACHNANTHES | -- | - | -- | - | 17 | 1 |
| ....COCCONEIS | 22 | 2 | -- | - | -- | - |
| ....RHOICOSPHENIA | 32 | 2 | -- | - | -- | - |
| ...CYMBELLACEAE | | | | | | |
| ....CYMBELLA | $220^{3}$ | 15 | -- | - | 84 | 3 |
| ....EPITHEMIA | 11 | 1 | -- | - | -- | - |
| ...DIATOMACEAE | | | | | | |
| ....DIATOMA | 76 | 5 | 17 | 1 | -- | - |
| ...FRAGILARIACEAE | | | | | | |
| ....SYNEDRA | 11 | 1 | 35 | 1 | 120 | 5 |
| ...GOMPHONEMATACEAE | | | | | | |
| ....GOMPHONEMA | 170 | 12 | 17 | 1 | -- | - |
| ...NAVICULACEAE | | | | | | |
| ....NAVICULA | $430^{3}$ | 31 | 230 | 7 | $470^{3}$ | 19 |
| ....PLEUROSIGMA | 11 | 1 | -- | - | -- | - |
| ...NITZSCHIACEAE | | | | | | |
| ....NITZSCHIA | $250^{3}$ | 18 | $1000^{3}$ | 32 | $400^{3}$ | 16 |
| ...SURIRELLACEAE | | | | | | |
| ....SURIRELLA | 65 | 5 | -- | - | -- | - |
| CRYPTOPHYTA (CRYPTOMONADS) | | | | | | |
| .CRYPTOPHYCEAE | 22 | 2 | -- | - | -- | - |
| ..CRYPTOMONADALES | | | | | | |
| ...CRYPTOMONADACEAE | | | | | | |
| ....CRYPTOMONAS | -- | - | 17 | 1 | -- | - |
| CYANOPHYTA (BLUE-GREEN ALGAE) | | | | | | |
| .CYANOPHYCEAE | | | | | | |
| ..CHROOCOCCALES | | | | | | |
| ...CHROOCOCCACEAE | | | | | | |
| ....ANACYSTIS | -- | - | -- | - | 17 | 1 |
| ..HORMOGONALES | | | | | | |
| ...OSCILLATORIACEAE | | | | | | |
| ....OSCILLATORIA | -- | - | $1200^{3}$ | 39 | $440^{3}$ | 18 |
| EUGLENOPHYTA (EUGLENOIDS) | | | | | | |
| .EUGLENOPHYCEAE | | | | | | |
| ..EUGLENALES | | | | | | |
| ...EUGLENACEAE | | | | | | |
| ....EUGLENA | -- | - | -- | - | 17 | 1 |

NOTE: $^{3}$ - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## 09152600 ORCHARD MESA DRAIN AT GRAND JUNCTION, CO

LOCATION.--Lat 39°02'49", long 108°34'17", in NE¼NE¼ sec.27, T.1 S., R.1 W., Ute Meridian, Mesa County, Hydrologic Unit 14020005, on right bank 350 ft (110 m) upstream from mouth and 1.6 mi (2.6 km) south of city hall in Grand Junction.

DRAINAGE AREA.--3.70 mi$^{2}$ (9.58 km$^{2}$).

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,565 ft (1,391 m), from topographic map.

REMARKS.--Records good except those for winter period and periods of no gage-height record, which are poor. Orchard Mesa Canal imports water from the Colorado River into basin above station for irrigation. Flow is mostly waste water from canal and return flow from land irrigated under the canal. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years (water years 1974-80), 7.80 ft$^{3}$/s (0.221 m$^{3}$/s), 5,650 acre-ft/yr (6.97 hm$^{3}$/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft$^{3}$/s (1.19 m$^{3}$/s) Aug. 8, 1977, gage height, 4.94 ft (1.506 m); maximum gage height, 4.95 ft (1.509 m) May 6, 1973; minimum daily discharge, 0.48 ft$^{3}$/s (0.014 m$^{3}$/s) Apr. 2, 3, 5, 6, 1976, Mar. 18, 20, 1977, Apr. 8, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35 ft$^{3}$/s (0.99 m$^{3}$/s) at 1600 May 24, gage height, 4.87 ft (1.484 m); minimum daily, 0.58 ft$^{3}$/s (0.016 m$^{3}$/s) Mar. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 19 | 2.8 | 1.6 | 1.7 | 1.4 | .58 | .73 | 23 | 18 | 14 | 12 | 13 |
| 2 | 18 | 2.8 | 1.7 | 1.6 | 1.5 | .65 | .73 | 22 | 19 | 15 | 12 | 14 |
| 3 | 19 | 2.8 | 1.9 | 1.6 | 1.7 | .81 | .77 | 20 | 15 | 17 | 12 | 14 |
| 4 | 20 | 2.8 | 1.9 | 1.5 | 1.2 | .79 | .85 | 19 | 14 | 21 | 12 | 13 |
| 5 | 20 | 2.6 | 2.0 | 1.3 | .83 | .72 | .92 | 18 | 17 | 20 | 11 | 13 |
| 6 | 18 | 2.5 | 2.0 | 1.2 | .93 | .72 | .88 | 17 | 16 | 16 | 11 | 13 |
| 7 | 17 | 2.8 | 1.9 | 1.2 | 1.1 | .72 | .80 | 21 | 16 | 17 | 9.2 | 11 |
| 8 | 17 | 2.6 | 1.9 | 1.1 | .91 | .72 | .83 | 23 | 16 | 17 | 9.2 | 12 |
| 9 | 17 | 2.5 | 1.9 | 1.1 | .90 | .71 | .92 | 19 | 16 | 16 | 7.9 | 13 |
| 10 | 18 | 2.4 | 1.9 | 1.3 | .88 | .70 | 1.2 | 17 | 13 | 13 | 8.6 | 15 |
| 11 | 18 | 2.4 | 1.9 | 1.3 | .86 | .80 | 2.4 | 12 | 10 | 15 | 8.5 | 15 |
| 12 | 20 | 2.3 | 1.9 | 1.3 | .84 | .70 | 5.0 | 16 | 11 | 16 | 9.3 | 14 |
| 13 | 20 | 2.3 | 1.8 | 1.4 | .76 | .72 | 7.0 | 13 | 11 | 18 | 9.6 | 13 |
| 14 | 16 | 2.3 | 1.8 | 1.6 | .90 | .78 | 9.3 | 14 | 11 | 18 | 12 | 12 |
| 15 | 13 | 2.2 | 1.8 | 1.6 | .90 | .77 | 10 | 16 | 8.2 | 16 | 16 | 11 |
| 16 | 13 | 2.2 | 1.8 | 1.4 | .69 | .73 | 11 | 16 | 9.2 | 15 | 15 | 11 |
| 17 | 13 | 2.3 | 1.8 | 1.4 | .76 | .72 | 11 | 15 | 7.0 | 14 | 16 | 13 |
| 18 | 13 | 2.6 | 1.8 | 1.4 | 1.1 | .75 | 11 | 14 | 11 | 11 | 16 | 12 |
| 19 | 13 | 2.8 | 1.9 | 1.4 | 1.3 | .82 | 11 | 15 | 11 | 11 | 14 | 11 |
| 20 | 14 | 3.0 | 2.0 | 1.3 | 1.1 | .88 | 11 | 17 | 14 | 11 | 14 | 10 |
| 21 | 7.6 | 2.6 | 2.0 | 1.2 | .86 | .82 | 11 | 14 | 14 | 12 | 12 | 12 |
| 22 | 3.7 | 2.4 | 1.9 | 1.2 | .80 | .76 | 11 | 13 | 13 | 11 | 11 | 11 |
| 23 | 3.7 | 2.4 | 1.8 | 1.2 | .89 | .74 | 12 | 22 | 9.4 | 10 | 15 | 9.3 |
| 24 | 3.8 | 2.4 | 1.8 | 1.2 | .72 | .76 | 15 | 28 | 9.4 | 10 | 19 | 9.9 |
| 25 | 3.7 | 2.4 | 1.9 | 1.2 | .72 | .72 | 17 | 16 | 8.3 | 10 | 19 | 9.0 |
| 26 | 3.5 | 2.6 | 1.9 | 1.2 | .72 | .73 | 16 | 14 | 8.3 | 11 | 14 | 8.1 |
| 27 | 3.2 | 2.3 | 1.9 | 1.2 | .74 | .76 | 13 | 18 | 11 | 11 | 14 | 9.6 |
| 28 | 3.2 | 1.8 | 1.7 | 1.2 | .82 | .80 | 9.7 | 17 | 15 | 11 | 12 | 13 |
| 29 | 3.2 | 1.8 | 1.7 | 1.2 | .67 | .82 | 10 | 14 | 16 | 11 | 12 | 12 |
| 30 | 2.9 | 1.5 | 1.7 | 1.1 | --- | .78 | 16 | 15 | 16 | 12 | 13 | 11 |
| 31 | 2.9 | --- | 1.8 | 1.4 | --- | .74 | --- | 17 | --- | 10 | 12 | --- |
| TOTAL | 377.4 | 73.2 | 57.3 | 41.0 | 27.50 | 23.22 | 228.03 | 535 | 383.8 | 430 | 388.3 | 357.9 |
| MEAN | 12.2 | 2.44 | 1.85 | 1.32 | .95 | .75 | 7.60 | 17.3 | 12.8 | 13.9 | 12.5 | 11.9 |
| MAX | 20 | 3.0 | 2.0 | 1.7 | 1.7 | .88 | 17 | 28 | 19 | 21 | 19 | 15 |
| MIN | 2.9 | 1.5 | 1.6 | 1.1 | .67 | .58 | .73 | 12 | 7.0 | 10 | 7.9 | 8.1 |
| AC-FT | 749 | 145 | 114 | 81 | 55 | 46 | 452 | 1060 | 761 | 853 | 770 | 710 |

CAL YR 1979 TOTAL 2540.21 MEAN 6.96 MAX 23 MIN .76 AC-FT 5040
WTR YR 1980 TOTAL 2922.65 MEAN 7.99 MAX 28 MIN .58 AC-FT 5[illegible]00

NOTE.--NO GAGE-HEIGHT RECORD DEC. 18 TO JAN. 30, MAR. 13 TO APR. 21.

## 09152650 LEACH CREEK AT DURHAM, CO

LOCATION.--Lat 39°05'27", long 108°36'25", in NW¼NW¼ sec.9, T.1 S., R.1 W., Ute Meridian, Mesa County, Hydrologic Unit 1401005, on left bank 40 ft (12 m) downstream from culvert on U.S. Highways 6 and 50, 0.5 mi (0.8 km) northwest of Durham, and 2.9 mi (4.7 km) northwest of city hall in Grand Junction.

DRAINAGE AREA.--24.8 mi² (64.2 km²).

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,540 ft (1,384 m), from topographic map.

REMARKS.--Records good. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years (water years 1974-80), 30.6 ft³/s (0.867 m³/s), 22,170 acre-ft/yr (27.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 632 ft³/s (17.9 m³/s) July 18, 1974, gage height, 6.76 ft (2.060 m); minimum daily, 4.4 ft³/s (0.12 m³/s) Mar. 30, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 210 ft³/s (5.95 m³/s) at 1100 Dec. 11, gage height, 3.83 ft (1.167 m); minimum daily, 5.7 ft³/s (0.16 ft³/s) Mar. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 49 | 56 | 11 | 16 | 6.5 | 5.9 | 7.1 | 35 | 36 | 42 | 34 | 34 |
| 2 | 48 | 62 | 11 | 15 | 6.5 | 6.0 | 7.2 | 34 | 31 | 50 | 34 | 34 |
| 3 | 49 | 68 | 11 | 16 | 6.5 | 6.1 | 7.0 | 32 | 30 | 46 | 36 | 34 |
| 4 | 52 | 66 | 11 | 13 | 6.6 | 6.0 | 7.0 | 32 | 32 | 41 | 35 | 32 |
| 5 | 56 | 62 | 11 | 9.7 | 6.4 | 5.9 | 6.9 | 33 | 33 | 39 | 36 | 34 |
| 6 | 54 | 22 | 11 | 8.4 | 6.7 | 6.4 | 6.7 | 35 | 33 | 41 | 37 | 34 |
| 7 | 55 | 17 | 11 | 8.2 | 7.1 | 6.7 | 6.6 | 41 | 30 | 40 | 39 | 34 |
| 8 | 56 | 15 | 11 | 8.2 | 6.8 | 6.1 | 6.5 | 47 | 29 | 38 | 38 | 34 |
| 9 | 57 | 14 | 11 | 7.7 | 6.5 | 5.7 | 6.6 | 43 | 32 | 36 | 36 | 34 |
| 10 | 57 | 14 | 28 | 9.4 | 6.3 | 5.7 | 6.8 | 37 | 32 | 39 | 38 | 44 |
| 11 | 60 | 14 | 106 | 8.0 | 6.4 | 5.9 | 6.8 | 44 | 29 | 39 | 34 | 47 |
| 12 | 63 | 13 | 121 | 8.2 | 6.3 | 6.5 | 6.5 | 46 | 30 | 35 | 34 | 46 |
| 13 | 64 | 12 | 111 | 8.7 | 6.7 | 6.0 | 6.4 | 42 | 31 | 35 | 34 | 43 |
| 14 | 62 | 12 | 59 | 11 | 7.2 | 6.0 | 6.4 | 40 | 36 | 36 | 33 | 42 |
| 15 | 66 | 12 | 24 | 8.4 | 7.4 | 6.0 | 6.6 | 40 | 39 | 37 | 39 | 41 |
| 16 | 62 | 12 | 13 | 8.2 | 7.1 | 6.3 | 7.0 | 41 | 39 | 40 | 39 | 37 |
| 17 | 64 | 12 | 13 | 8.0 | 7.0 | 5.8 | 9.0 | 45 | 35 | 40 | 37 | 34 |
| 18 | 65 | 12 | 15 | 8.2 | 8.4 | 6.2 | 14 | 42 | 38 | 39 | 33 | 32 |
| 19 | 65 | 13 | 17 | 7.7 | 9.4 | 6.2 | 17 | 40 | 39 | 37 | 33 | 32 |
| 20 | 63 | 13 | 20 | 7.4 | 7.8 | 6.2 | 18 | 41 | 43 | 36 | 35 | 33 |
| 21 | 62 | 12 | 18 | 7.2 | 7.3 | 6.4 | 19 | 47 | 45 | 35 | 35 | 34 |
| 22 | 63 | 11 | 19 | 7.2 | 7.0 | 7.2 | 19 | 47 | 45 | 34 | 34 | 36 |
| 23 | 63 | 12 | 19 | 7.0 | 7.0 | 7.8 | 20 | 45 | 45 | 35 | 39 | 30 |
| 24 | 63 | 11 | 19 | 7.0 | 6.5 | 6.5 | 23 | 43 | 45 | 35 | 50 | 29 |
| 25 | 64 | 12 | 19 | 7.2 | 6.3 | 8.2 | 24 | 41 | 43 | 36 | 65 | 30 |
| 26 | 65 | 12 | 19 | 7.0 | 6.7 | 7.1 | 30 | 38 | 43 | 37 | 47 | 30 |
| 27 | 57 | 11 | 18 | 7.0 | 6.3 | 7.2 | 30 | 38 | 43 | 36 | 37 | 30 |
| 28 | 48 | 11 | 18 | 7.0 | 6.3 | 7.1 | 27 | 36 | 41 | 35 | 35 | 29 |
| 29 | 49 | 11 | 17 | 7.2 | 6.3 | 6.9 | 27 | 42 | 42 | 36 | 33 | 30 |
| 30 | 53 | 11 | 18 | 6.7 | --- | 7.3 | 31 | 42 | 42 | 33 | 34 | 29 |
| 31 | 56 | --- | 18 | 6.4 | --- | 7.5 | --- | 42 | --- | 33 | 37 | --- |
| TOTAL | 1810 | 635 | 828 | 272.3 | 199.3 | 200.8 | 416.1 | 1251 | 1111 | 1171 | 1160 | 1042 |
| MEAN | 58.4 | 21.2 | 26.7 | 8.78 | 6.87 | 6.48 | 13.9 | 40.4 | 37.0 | 37.8 | 37.4 | 34.7 |
| MAX | 66 | 68 | 121 | 16 | 9.4 | 8.2 | 31 | 47 | 45 | 50 | 65 | 47 |
| MIN | 48 | 11 | 11 | 6.4 | 6.3 | 5.7 | 6.4 | 32 | 29 | 33 | 33 | 29 |
| AC-FT | 3590 | 1260 | 1640 | 540 | 395 | 398 | 825 | 2480 | 2200 | 2320 | 2300 | 2070 |

CAL YR 1979 TOTAL 11931.1 MEAN 32.7 MAX 121 MIN 6.0 AC-FT 23670
WTR YR 1980 TOTAL 10096.5 MEAN 27.6 MAX 121 MIN 5.7 AC-FT 20030

## 09152900 ADOBE CREEK NEAR FRUITA, CO

LOCATION.--Lat 39°08'13", long 108°41'49", in SW¼SW¼ sec.22, T.1 N., R.2 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 30 ft (9 m) downstream from bridge on U.S. Highways 6 and 50, 0.8 mi (1.3 km) upstream from mouth, and 2.4 mi (3.9 km) southeast of Fruita.

DRAINAGE AREA.--15.4 mi² (39.9 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

REVISED RECORDS.--WDR CO-77-2: 1973-76(M).

GAGE.--Water-stage recorder. Altitude of gage is 4,520 ft (1,378 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals.

AVERAGE DISCHARGE.--7 years, 2.3 ft³/s (0.603 m³/s), 15,430 acre-ft/yr (19.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 173 ft³/s (4.90 m³/s) July 4, 1977, gage height, 5.68 ft (1.731 m), from rating curve extended above 95 ft³/s (2.7 m³/s); minimum daily, 1.3 ft³/s (0.037 m³/s) Apr. 2, 3, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 88 ft³/s (2.49 m³/s) at 1700 Aug. 25, gage height, 4.05 ft (1.234 m); minimum daily, 1.4 ft³/s (0.040 m³/s) Jan. 23, Apr. 8, 12-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 47 | 7.6 | 3.8 | 2.9 | 1.5 | 2.2 | 1.8 | 24 | 45 | 35 | 31 | 40 |
| 2 | 49 | 7.4 | 3.8 | 2.9 | 1.5 | 2.2 | 1.9 | 25 | 47 | 45 | 34 | 39 |
| 3 | 44 | 7.4 | 3.8 | 2.8 | 1.5 | 2.2 | 1.7 | 26 | 49 | 45 | 42 | 37 |
| 4 | 45 | 7.4 | 3.8 | 2.7 | 1.5 | 2.2 | 1.7 | 31 | 49 | 39 | 45 | 35 |
| 5 | 44 | 7.5 | 3.8 | 2.7 | 1.5 | 2.3 | 1.6 | 30 | 46 | 39 | 48 | 33 |
| 6 | 41 | 7.1 | 3.7 | 2.8 | 1.6 | 2.3 | 1.6 | 29 | 44 | 38 | 40 | 33 |
| 7 | 43 | 7.0 | 3.7 | 2.8 | 1.7 | 2.4 | 1.5 | 32 | 40 | 37 | 43 | 32 |
| 8 | 42 | 7.4 | 3.7 | 2.5 | 1.5 | 2.4 | 1.4 | 29 | 39 | 42 | 45 | 35 |
| 9 | 39 | 6.9 | 3.7 | 2.5 | 1.5 | 2.4 | 1.5 | 30 | 44 | 48 | 43 | 40 |
| 10 | 41 | 6.8 | 3.6 | 5.5 | 1.5 | 2.4 | 1.6 | 27 | 41 | 53 | 40 | 42 |
| 11 | 42 | 6.4 | 3.6 | 1.6 | 1.5 | 2.4 | 1.5 | 30 | 37 | 53 | 39 | 40 |
| 12 | 43 | 5.6 | 3.2 | 1.5 | 1.7 | 2.5 | 1.4 | 33 | 38 | 52 | 40 | 37 |
| 13 | 41 | 5.0 | 5.3 | 3.9 | 1.6 | 2.2 | 1.4 | 30 | 36 | 51 | 38 | 36 |
| 14 | 41 | 4.5 | 3.3 | 6.7 | 1.7 | 2.1 | 1.4 | 30 | 41 | 48 | 37 | 37 |
| 15 | 41 | 4.0 | 2.8 | 1.8 | 1.7 | 2.1 | 1.4 | 29 | 45 | 42 | 40 | 36 |
| 16 | 41 | 3.9 | 2.8 | 1.6 | 1.6 | 2.0 | 1.5 | 28 | 42 | 39 | 47 | 32 |
| 17 | 41 | 3.9 | 2.7 | 1.6 | 1.6 | 1.9 | 4.7 | 32 | 46 | 41 | 47 | 36 |
| 18 | 41 | 3.9 | 2.7 | 1.7 | 2.1 | 2.1 | 12 | 31 | 50 | 42 | 42 | 36 |
| 19 | 42 | 3.9 | 2.7 | 1.6 | 2.2 | 2.0 | 19 | 31 | 48 | 41 | 38 | 34 |
| 20 | 42 | 3.9 | 2.5 | 1.5 | 2.5 | 1.9 | 21 | 35 | 45 | 42 | 41 | 34 |
| 21 | 43 | 3.9 | 2.7 | 1.5 | 2.2 | 1.9 | 22 | 36 | 46 | 42 | 40 | 38 |
| 22 | 42 | 3.9 | 2.7 | 1.5 | 2.1 | 2.0 | 26 | 35 | 51 | 46 | 36 | 42 |
| 23 | 42 | 3.8 | 2.5 | 1.4 | 2.0 | 2.1 | 30 | 34 | 51 | 42 | 39 | 37 |
| 24 | 42 | 3.8 | 2.1 | 1.5 | 1.9 | 1.9 | 32 | 34 | 46 | 46 | 44 | 37 |
| 25 | 42 | 3.8 | 2.1 | 1.7 | 1.9 | 2.2 | 30 | 37 | 38 | 48 | 49 | 37 |
| 26 | 21 | 3.8 | 2.8 | 1.6 | 2.0 | 2.7 | 27 | 36 | 39 | 43 | 35 | 42 |
| 27 | 11 | 3.8 | 3.6 | 1.6 | 2.0 | 2.8 | 28 | 39 | 39 | 37 | 32 | 46 |
| 28 | 7.8 | 3.8 | 3.1 | 1.6 | 2.0 | 2.0 | 26 | 37 | 38 | 30 | 34 | 49 |
| 29 | 7.6 | 3.8 | 3.2 | 1.6 | 2.1 | 1.7 | 26 | 41 | 39 | 33 | 38 | 45 |
| 30 | 7.6 | 3.8 | 3.1 | 1.5 | --- | 1.8 | 30 | 42 | 35 | 34 | 40 | 44 |
| 31 | 7.6 | --- | 2.8 | 1.5 | --- | 2.0 | --- | 47 | --- | 29 | 40 | --- |
| TOTAL | 1123.6 | 155.7 | 99.7 | 70.6 | 51.7 | 67.3 | 358.6 | 1010 | 1294 | 1302 | 1247 | 1141 |
| MEAN | 36.2 | 5.19 | 3.22 | 2.28 | 1.78 | 2.17 | 12.0 | 32.6 | 43.1 | 42.0 | 40.2 | 38.0 |
| MAX | 49 | 7.6 | 5.3 | 6.7 | 2.5 | 2.8 | 32 | 47 | 51 | 53 | 49 | 49 |
| MIN | 7.6 | 3.8 | 2.1 | 1.4 | 1.5 | 1.7 | 1.4 | 24 | 35 | 29 | 31 | 32 |
| AC-FT | 2230 | 309 | 198 | 140 | 103 | 133 | 711 | 2000 | 2570 | 2580 | 2470 | 2260 |

CAL YR 1979 TOTAL 8223.7 MEAN 22.5 MAX 52 MIN 1.4 AC-FT 16310
WTR YR 1980 TOTAL 7921.2 MEAN 21.6 MAX 53 MIN 1.4 AC-FT 15710

NOTE.--NO GAGE-HEIGHT RECORD NOV. 9 TO DEC. 11.

## 09152900 ADOBE CREEK NEAR FRUITA, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1973 to current year.
WATER TEMPERATURES: April 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 9,380 micromhos Apr. 12, 1979; minimum, 750 micromhos Mar. 4, 5, 1974.
WATER TEMPERATURES: Maximum, 33.0°C Apr. 11, 1973; minimum, 0.5°C on several days during November 1975 to January 1976, Jan. 25, 26, 1978, and December 1978 to January 1979.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 7,230 micromhos Mar. 27; minimum, 776 micromhos June 3.
WATER TEMPERATURE: Maximum, 28.5°C July 21; minimum, 3.5°C Mar. 31.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | OXYGEN, DISSOLVED (MG/L) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| NOV 05... | 1010 | 7.6 | 4200 | 8.6 | 11.0 | 8.7 | 1800 | 1500 |
| JAN 29... | 1310 | 3.4 | 4450 | 7.9 | 6.0 | 11.7 | 2400 | 1600 |
| APR 22... | 0810 | 26 | 1250 | 7.8 | 12.5 | 10.7 | 400 | 250 |
| AUG 21... | 1100 | 48 | 1500 | 8.1 | 15.5 | 9.4 | 510 | 360 |

| DATE | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| NOV 05... | 410 | 190 | 360 | 3.7 | 9.8 | 280 | 1900 | 210 | .3 |
| JAN 29... | 510 | 270 | 390 | 3.5 | 10 | 240 | 2500 | 250 | .3 |
| APR 22... | 100 | 36 | 120 | 2.6 | 5.2 | 150 | 320 | 110 | .3 |
| AUG 21... | 140 | 40 | 140 | 2.7 | 5.5 | 150 | 450 | 170 | .3 |

| DATE | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | IRON, DISSOLVED (UG/L AS FE) | MANGANESE, DISSOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| NOV 05... | 12 | 3310 | 4.50 | 68.3 | 11 | .000 | 80 | 210 |
| JAN 29... | 11 | 3300 | 4.49 | 30.3 | 8.4 | .080 | 60 | 270 |
| APR 22... | 10 | 797 | 1.08 | 56.8 | 1.2 | .160 | 20 | 60 |
| AUG 21... | 10 | 1050 | 1.43 | 138 | 1.4 | .080 | 20 | 20 |

## 09152900 ADOBE CREEK NEAR FRUITA, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1770 | 3300 | 4400 | 4530 | 4530 | 4880 | 4910 | 909 | 894 | 1240 | 1660 | 1650 |
| 2 | 1760 | 3400 | 4420 | 4520 | 4540 | 4830 | 4760 | 920 | 865 | 1150 | 1610 | 1660 |
| 3 | 1850 | 3500 | 4440 | 4540 | 4570 | 4830 | 5190 | 913 | 835 | 1150 | 1530 | 1700 |
| 4 | 1870 | 3500 | 4450 | 4570 | 4630 | 4800 | 4950 | 900 | 832 | 1220 | 1510 | 1730 |
| 5 | 1910 | 3600 | 4470 | 4600 | 4630 | 4720 | 4800 | 896 | 840 | 1210 | 1500 | 1750 |
| 6 | 2010 | 3700 | 4480 | 4630 | 4660 | 4670 | 4600 | 906 | 883 | 1220 | 1570 | 1780 |
| 7 | 1930 | 3700 | 4500 | 4620 | 4710 | 4620 | 4460 | 893 | 916 | 1250 | 1570 | 1800 |
| 8 | 1840 | 3800 | 4500 | 4660 | 4680 | 5180 | 4320 | 913 | 892 | 1230 | 1560 | 1820 |
| 9 | 1680 | 3800 | 4530 | 4700 | 4670 | 5510 | 4310 | 896 | 855 | 1200 | 1590 | 1790 |
| 10 | 1640 | 3900 | 4550 | 4380 | 4660 | 4720 | 4330 | 902 | 879 | 1130 | 1640 | 1830 |
| 11 | 1660 | 4100 | 4560 | 3700 | 4680 | 4550 | 4310 | 913 | 920 | 1110 | 1660 | 2460 |
| 12 | 1710 | 4110 | 4660 | 4460 | 4690 | 4450 | 4310 | 923 | 927 | 1120 | 1660 | 1940 |
| 13 | 1770 | 4130 | 4360 | 4150 | 4740 | 4650 | 4340 | 946 | 959 | 1120 | 1730 | 1980 |
| 14 | 1800 | 4150 | 4430 | 2930 | 4860 | 4590 | 4370 | 952 | 910 | 1270 | 1740 | 2120 |
| 15 | 1800 | 4160 | 4460 | 3430 | 4950 | 4500 | 4390 | 962 | 876 | 1180 | 1670 | 2090 |
| 16 | 1750 | 4180 | 4570 | 4190 | 5030 | 4460 | 4380 | 972 | 916 | 1210 | 1500 | 1990 |
| 17 | 1700 | 4190 | 4630 | 4250 | 5070 | 4410 | 3620 | 986 | 911 | 1210 | 1500 | 1900 |
| 18 | 1700 | 4200 | 4740 | 4280 | 5040 | 4420 | 2400 | 988 | 897 | 1200 | 1520 | 1800 |
| 19 | 1750 | 4220 | 4700 | 4270 | 4980 | 4470 | 1920 | 991 | 909 | 1210 | 1540 | 1640 |
| 20 | 1750 | 4240 | 4700 | 4280 | 5130 | 4460 | 1620 | 974 | 926 | 1220 | 1520 | 1570 |
| 21 | 1800 | 4250 | 4690 | 4300 | 5880 | 4450 | 1500 | 951 | 937 | 1220 | 1620 | 1530 |
| 22 | 1800 | 4260 | 4730 | 4320 | 5420 | 4450 | 1290 | 938 | 932 | 1220 | 1710 | 1520 |
| 23 | 1800 | 4280 | 4750 | 4340 | 5520 | 4330 | 1280 | 928 | 918 | 1210 | 1680 | 1620 |
| 24 | 1800 | 4300 | 4700 | 4340 | 5450 | 4410 | 1270 | 920 | 1010 | 1210 | 1790 | 1670 |
| 25 | 2000 | 4310 | 4630 | 4380 | 5210 | 4350 | 1260 | 896 | 1140 | 1200 | 1740 | 1720 |
| 26 | 2500 | 4330 | 4590 | 4410 | 5030 | 4650 | 1210 | 878 | 1130 | 1190 | 1780 | 1720 |
| 27 | 3000 | 4340 | 4620 | 4450 | 5000 | 5690 | 1190 | 876 | 1170 | 1190 | 1760 | 1730 |
| 28 | 3070 | 4400 | 4570 | 4470 | 4990 | 5230 | 1060 | 889 | 1180 | 1180 | 1700 | 1750 |
| 29 | 3130 | 4380 | 4550 | 4500 | 4950 | 4940 | 987 | 943 | 1200 | 1370 | 1650 | 1830 |
| 30 | 3200 | 4390 | 4560 | 4550 | --- | 4690 | 901 | 930 | 1280 | 1560 | 1610 | 1870 |
| 31 | 3300 | --- | 4540 | 4530 | --- | 4810 | --- | 865 | --- | 1750 | 1630 | --- |

## 09152900 ADOBE CREEK NEAR FRUITA, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | | | | | | | --- | --- | 9.5 | 6.0 |
| 2 | 19.0 | 13.0 | | | | | | | --- | --- | 9.0 | 6.5 |
| 3 | 18.5 | 14.0 | | | | | | | --- | --- | 9.0 | 7.5 |
| 4 | 17.5 | 12.0 | | | | | | | --- | --- | 10.0 | 7.0 |
| 5 | 17.5 | 11.0 | | | | | | | --- | --- | 9.0 | 6.5 |
| 6 | 18.0 | 11.0 | | | | | | | --- | --- | 9.0 | 8.0 |
| 7 | 17.5 | 11.0 | | | | | | | --- | --- | 9.0 | 7.5 |
| 8 | 17.0 | 11.0 | | | | | | | --- | --- | 11.0 | 7.5 |
| 9 | 16.5 | 11.0 | | | | | | | --- | --- | 10.0 | 6.5 |
| 10 | 17.0 | 11.0 | | | | | | | --- | --- | 10.0 | 6.0 |
| 11 | 16.5 | 10.5 | | | | | | | --- | --- | 8.5 | 6.5 |
| 12 | 16.5 | 10.5 | | | | | | | --- | --- | 10.0 | 7.0 |
| 13 | 16.0 | 10.5 | | | | | | | --- | --- | 10.0 | 5.5 |
| 14 | 13.5 | 11.0 | | | | | | | --- | --- | 11.0 | 6.0 |
| 15 | --- | --- | | | | | | | --- | --- | 11.0 | 7.5 |
| 16 | --- | --- | | | | | | | --- | --- | 9.5 | 6.5 |
| 17 | --- | --- | | | | | | | --- | --- | 8.5 | 4.0 |
| 18 | --- | --- | | | | | | | --- | --- | 9.5 | 4.5 |
| 19 | --- | --- | | | | | | | --- | --- | 11.5 | 7.0 |
| 20 | --- | --- | | | | | | | --- | --- | 11.5 | 7.0 |
| 21 | --- | --- | | | | | | | --- | --- | 12.5 | 7.5 |
| 22 | --- | --- | | | | | | | --- | --- | 10.0 | 8.5 |
| 23 | --- | --- | | | | | | | 9.0 | 7.5 | 10.5 | 7.5 |
| 24 | --- | --- | | | | | | | 9.0 | 6.0 | 12.0 | 8.0 |
| 25 | --- | --- | | | | | | | 8.0 | 5.0 | 9.5 | 6.5 |
| 26 | --- | --- | | | | | | | 8.5 | 5.0 | 10.0 | 5.5 |
| 27 | --- | --- | | | | | | | 9.5 | 5.5 | 11.0 | 6.0 |
| 28 | --- | --- | | | | | | | 9.5 | 6.0 | 10.5 | 7.5 |
| 29 | --- | --- | | | | | | | 10.0 | 8.0 | 11.5 | 7.5 |
| 30 | --- | --- | | | | | | | --- | --- | 10.0 | 6.5 |
| 31 | --- | --- | | | | | | | --- | --- | 8.0 | 3.5 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 10.5 | 5.0 | 18.0 | 12.5 | 20.5 | 12.0 | 24.5 | 19.0 | 27.0 | 21.5 | 20.5 | 18.0 |
| 2 | 9.5 | 7.5 | 20.5 | 12.0 | 21.5 | 11.5 | 25.0 | 19.0 | 28.0 | 21.5 | 20.5 | 18.0 |
| 3 | 12.0 | 5.5 | 21.0 | 12.0 | 22.0 | 13.0 | 26.0 | 19.0 | 27.0 | 21.5 | 21.0 | 18.5 |
| 4 | 14.0 | 7.5 | 20.5 | 13.0 | 22.5 | 13.5 | 25.5 | 18.0 | 26.5 | 20.0 | 21.5 | 19.0 |
| 5 | 15.0 | 9.0 | 22.0 | 13.5 | 22.5 | 13.5 | 26.0 | 17.0 | 27.0 | 20.5 | 21.0 | 19.5 |
| 6 | 15.5 | 10.0 | 22.0 | 13.5 | 21.5 | 14.5 | 25.0 | 16.5 | 27.0 | 20.0 | 21.5 | 20.0 |
| 7 | 13.5 | 9.0 | 17.5 | 14.5 | 22.0 | 13.5 | 22.0 | 18.5 | 27.5 | 20.0 | 21.5 | 20.0 |
| 8 | 12.5 | 6.0 | 20.0 | 13.5 | 22.0 | 14.0 | 26.0 | 18.0 | 28.0 | 20.0 | 21.5 | 20.0 |
| 9 | 14.0 | 7.5 | 16.5 | 13.0 | 23.5 | 14.0 | 27.5 | 19.0 | 28.0 | 21.5 | 21.5 | 20.0 |
| 10 | 13.5 | 9.5 | 19.0 | 12.5 | 24.5 | 14.5 | 25.5 | 20.0 | 28.0 | 21.0 | 20.5 | 19.5 |
| 11 | 9.5 | 8.0 | 14.0 | 11.5 | 24.5 | 14.5 | 27.0 | 20.0 | 27.5 | 19.5 | 20.5 | 17.5 |
| 12 | 13.5 | 6.0 | 13.0 | 10.0 | 25.0 | 14.5 | 26.5 | 20.5 | 27.5 | 18.5 | 21.5 | 18.0 |
| 13 | 14.0 | 7.0 | 18.5 | 9.5 | 24.0 | 13.5 | 25.0 | 20.5 | 27.0 | 20.0 | 21.5 | 18.0 |
| 14 | 15.5 | 7.5 | 16.0 | 10.5 | 23.0 | 13.5 | 26.5 | 19.5 | 25.5 | 21.5 | 21.5 | 17.0 |
| 15 | 17.0 | 9.0 | 18.0 | 11.0 | 23.5 | 13.5 | 27.0 | 18.5 | 27.0 | 21.5 | 21.5 | 16.5 |
| 16 | 17.5 | 9.5 | 19.5 | 12.0 | 24.0 | 13.5 | 27.0 | 18.0 | 25.0 | 20.0 | 21.5 | 18.0 |
| 17 | 18.0 | 9.0 | 19.0 | 12.0 | 23.0 | 14.5 | 27.5 | 19.0 | 25.0 | 21.0 | 21.5 | 16.0 |
| 18 | 18.5 | 10.0 | 20.0 | 11.5 | 24.0 | 15.0 | 27.5 | 19.5 | 24.5 | 18.0 | 22.0 | 16.0 |
| 19 | 20.0 | 10.5 | 21.0 | 12.5 | 24.5 | 16.0 | 28.0 | 20.0 | 23.0 | 18.0 | 22.0 | 16.5 |
| 20 | 18.0 | 11.5 | 22.0 | 13.5 | 25.5 | 16.0 | 28.0 | 20.0 | 23.5 | 18.0 | 22.0 | 17.0 |
| 21 | 16.5 | 14.0 | 23.0 | 14.5 | 24.5 | 16.0 | 28.5 | 19.5 | 24.0 | 16.5 | 20.5 | 15.5 |
| 22 | 17.5 | 13.5 | 20.5 | 15.0 | 24.0 | 16.0 | --- | --- | 23.5 | 17.0 | 20.0 | 15.0 |
| 23 | 16.5 | 14.0 | 22.0 | 14.5 | 23.5 | 15.5 | --- | --- | 23.0 | 20.0 | 19.5 | 13.5 |
| 24 | 16.0 | 12.0 | 17.5 | 12.5 | 25.5 | 12.0 | --- | --- | 22.0 | 19.5 | 19.5 | 13.5 |
| 25 | 20.0 | 12.0 | 16.5 | 10.5 | 25.5 | 10.0 | --- | --- | 20.5 | 18.0 | 19.5 | 14.0 |
| 26 | 20.5 | 10.0 | 19.0 | 9.5 | 25.5 | 17.0 | --- | --- | 24.0 | 18.0 | 20.0 | 14.0 |
| 27 | 21.5 | 10.0 | 18.0 | 10.0 | 25.5 | 16.0 | --- | --- | 24.0 | 18.0 | 20.5 | 14.5 |
| 28 | 22.0 | 11.0 | 19.5 | 11.5 | 26.0 | --- | --- | --- | 24.0 | 18.5 | 20.5 | 14.5 |
| 29 | 19.0 | 13.5 | 21.0 | 13.0 | 26.5 | 17.5 | --- | --- | 21.5 | 19.5 | 21.0 | 14.5 |
| 30 | 20.5 | 12.0 | 21.5 | 12.0 | 27.5 | 19.0 | --- | --- | 21.0 | 19.0 | 20.0 | 15.0 |
| 31 | --- | --- | 21.5 | 12.0 | --- | --- | 27.5 | 21.0 | 20.0 | 18.0 | --- | --- |

## 09153290 REED WASH NEAR MACK, CO

LOCATION.--Lat 39°12'41", long 108°48'11", in SE¼SW¼ sec.27, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 250 ft (76 m) upstream from unnamed tributary, 0.4 mi (0.6 km) downstream from Peck and Beede Wash, and 3.5 mi (5.6 km) east of Mack.

DRAINAGE AREA.--15.7 mi² (40.7 km²).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,505 ft (1,373 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Flow is mostly return flow and waste water from irrigated lands under Government Highline and Grand Valley Canals. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years, 50.0 ft³/s (1.416 m³/s), 36,220 acre-ft/yr (44.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 264 ft³/s (7.48 m³/s) July 24, 1979, gage height, 6.09 ft (1.856 m); minimum daily, 2.0 ft³/s (0.057 m³/s) Jan. 31, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 162 ft³/s (4.59 m³/s) at 1700 Sept. 10, gage height, 4.92 ft (1.500 m); minimum daily, 4.0 ft³/s (0.113 m³/s) Apr. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 92 | 59 | 9.1 | 6.8 | 6.1 | 5.2 | 6.2 | 56 | 100 | 81 | 73 | 87 |
| 2 | 92 | 18 | 9.1 | 6.8 | 6.1 | 5.2 | 6.3 | 64 | 91 | 89 | 73 | 91 |
| 3 | 90 | 15 | 9.1 | 6.8 | 6.1 | 5.2 | 6.1 | 67 | 76 | 96 | 70 | 94 |
| 4 | 77 | 14 | 9.1 | 6.4 | 6.1 | 5.2 | 6.1 | 63 | 76 | 75 | 65 | 93 |
| 5 | 66 | 14 | 9.1 | 6.4 | 6.1 | 5.2 | 5.9 | 84 | 66 | 60 | 70 | 95 |
| 6 | 81 | 13 | 9.1 | 6.4 | 6.1 | 5.3 | 5.7 | 106 | 66 | 64 | 70 | 95 |
| 7 | 80 | 13 | 9.4 | 6.4 | 6.1 | 5.5 | 5.2 | 114 | 67 | 77 | 72 | 108 |
| 8 | 79 | 13 | 9.4 | 6.4 | 6.1 | 5.5 | 4.7 | 119 | 68 | 98 | 78 | 118 |
| 9 | 85 | 12 | 9.4 | 6.4 | 5.5 | 5.5 | 4.6 | 121 | 76 | 86 | 83 | 113 |
| 10 | 79 | 12 | 9.4 | 23 | 5.2 | 5.5 | 4.6 | 122 | 74 | 98 | 77 | 125 |
| 11 | 81 | 12 | 19 | 7.8 | 5.3 | 5.5 | 4.6 | 124 | 70 | 99 | 69 | 121 |
| 12 | 77 | 11 | 21 | 6.7 | 6.1 | 5.5 | 4.6 | 150 | 77 | 87 | 66 | 110 |
| 13 | 77 | 11 | 13 | 11 | 6.1 | 5.5 | 4.6 | 142 | 73 | 95 | 75 | 80 |
| 14 | 70 | 11 | 11 | 35 | 6.2 | 5.5 | 4.6 | 138 | 56 | 89 | 83 | 70 |
| 15 | 83 | 11 | 9.4 | 8.6 | 6.3 | 5.5 | 4.0 | 133 | 65 | 64 | 83 | 73 |
| 16 | 83 | 10 | 8.0 | 6.8 | 6.1 | 5.6 | 14 | 130 | 62 | 74 | 82 | 74 |
| 17 | 78 | 7.0 | 7.8 | 6.4 | 6.1 | 5.2 | 50 | 123 | 59 | 79 | 79 | 56 |
| 18 | 83 | 11 | 7.8 | 9.0 | 6.7 | 4.9 | 36 | 120 | 58 | 88 | 82 | 68 |
| 19 | 86 | 11 | 7.4 | 6.9 | 7.5 | 4.9 | 36 | 118 | 58 | 93 | 82 | 80 |
| 20 | 89 | 11 | 7.4 | 6.1 | 9.3 | 5.0 | 32 | 118 | 59 | 89 | 85 | 80 |
| 21 | 87 | 10 | 7.4 | 6.1 | 5.7 | 5.8 | 22 | 117 | 62 | 84 | 82 | 72 |
| 22 | 92 | 10 | 7.4 | 6.1 | 4.9 | 6.1 | 39 | 115 | 63 | 76 | 82 | 74 |
| 23 | 89 | 10 | 7.4 | 6.1 | 4.9 | 6.1 | 45 | 110 | 61 | 82 | 90 | 63 |
| 24 | 84 | 10 | 7.2 | 6.1 | 4.9 | 6.1 | 66 | 114 | 65 | 87 | 112 | 62 |
| 25 | 78 | 10 | 6.9 | 6.1 | 4.9 | 6.8 | 57 | 120 | 59 | 89 | 114 | 60 |
| 26 | 72 | 10 | 7.4 | 6.1 | 4.9 | 6.5 | 53 | 128 | 53 | 88 | 99 | 62 |
| 27 | 69 | 9.7 | 6.8 | 6.1 | 4.9 | 5.9 | 54 | 120 | 60 | 90 | 84 | 71 |
| 28 | 66 | 8.2 | 6.8 | 6.1 | 5.5 | 5.8 | 51 | 110 | 59 | 80 | 93 | 72 |
| 29 | 62 | 8.7 | 6.8 | 6.2 | 6.1 | 5.8 | 41 | 112 | 56 | 72 | 101 | 67 |
| 30 | 57 | 7.5 | 6.8 | 6.2 | --- | 5.9 | 41 | 108 | 77 | 77 | 95 | 63 |
| 31 | 60 | --- | 6.8 | 6.1 | --- | 6.4 | --- | 105 | --- | 80 | 91 | --- |
| TOTAL | 2444 | 383.1 | 281.7 | 253.4 | 171.9 | 173.6 | 714.8 | 3471 | 2012 | 2586 | 2560 | 2497 |
| MEAN | 78.8 | 12.8 | 9.09 | 8.17 | 5.93 | 5.60 | 23.8 | 112 | 67.1 | 83.4 | 82.6 | 83.2 |
| MAX | 92 | 59 | 21 | 35 | 9.3 | 6.8 | 66 | 150 | 100 | 99 | 114 | 125 |
| MIN | 57 | 7.0 | 6.8 | 6.1 | 4.9 | 4.9 | 4.0 | 56 | 53 | 60 | 65 | 56 |
| AC-FT | 4850 | 760 | 559 | 503 | 341 | 344 | 1420 | 6880 | 3990 | 5130 | 5080 | 4950 |

CAL YR 1979 TOTAL 17463.8 MEAN 47.8 MAX 127 MIN 2.0 AC-FT 34640
WTR YR 1980 TOTAL 17548.5 MEAN 47.9 MAX 150 MIN 4.0 AC-FT 34810

## 09153300 REED WASH NEAR LOMA, CO

LOCATION.--Lat 39°11'01", long 108°47'12", in NE¼SW¼ sec.2, T.1 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 40 ft (12 m) upstream from bridge on U.S. Highways 6 and 50, 1.6 mi (2.6 km) upstream from mouth, and 1.7 mi (2.7 km) southeast of Loma.

DRAINAGE AREA.--29.3 mi² (75.9 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,470 ft (1,362 m), from topographic map.

REMARKS.--Records good. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals.

AVERAGE DISCHARGE.--7 years, 94.6 ft³/s (2.679 m³/s), 68,540 acre-ft/yr (84.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 297 ft³/s (8.41 m³/s) July 21, 1973, gage height, 6.48 ft (1.975 m); minimum daily, 6.1 ft³/s (0.17 m³/s) Feb. 27, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 246 ft³/s (6.97 m³/s) at 1200 Sept. 8, gage height, 5.22 ft (1.591 m); minimum daily, 9.3 ft³/s (0.26 m³/s) Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 173 | 120 | 18 | 15 | 13 | 13 | 10 | 149 | 153 | 164 | 178 | 179 |
| 2 | 175 | 110 | 17 | 15 | 13 | 13 | 11 | 148 | 170 | 178 | 176 | 180 |
| 3 | 172 | 58 | 17 | 15 | 13 | 13 | 10 | 153 | 172 | 179 | 165 | 184 |
| 4 | 164 | 35 | 17 | 14 | 13 | 13 | 10 | 146 | 167 | 189 | 160 | 194 |
| 5 | 165 | 29 | 17 | 14 | 13 | 12 | 10 | 146 | 164 | 185 | 162 | 184 |
| 6 | 165 | 29 | 18 | 14 | 13 | 13 | 9.8 | 143 | 165 | 184 | 151 | 195 |
| 7 | 165 | 30 | 18 | 14 | 13 | 14 | 9.6 | 151 | 171 | 183 | 150 | 206 |
| 8 | 164 | 30 | 17 | 14 | 13 | 12 | 9.3 | 159 | 180 | 198 | 147 | 222 |
| 9 | 168 | 30 | 17 | 14 | 12 | 12 | 9.6 | 164 | 187 | 186 | 149 | 218 |
| 10 | 170 | 28 | 17 | 18 | 12 | 12 | 10 | 163 | 181 | 190 | 145 | 229 |
| 1 | 171 | 27 | 18 | 31 | 12 | 12 | 9.8 | 177 | 179 | 194 | 140 | 223 |
| 1. | 167 | 26 | 28 | 22 | 12 | 13 | 9.9 | 202 | 182 | 187 | 131 | 206 |
| 1. | 165 | 26 | 27 | 20 | 12 | 12 | 9.8 | 191 | 176 | 194 | 141 | 198 |
| 14 | 159 | 25 | 25 | 41 | 13 | 12 | 10 | 182 | 168 | 212 | 154 | 190 |
| 15 | 160 | 24 | 21 | 39 | 13 | 12 | 10 | 184 | 181 | 203 | 161 | 190 |
| 16 | 160 | 24 | 19 | 19 | 13 | 12 | 35 | 168 | 181 | 204 | 157 | 186 |
| 17 | 155 | 24 | 17 | 16 | 12 | 11 | 135 | 167 | 173 | 201 | 153 | 177 |
| 18 | 157 | 23 | 17 | 19 | 13 | 12 | 128 | 161 | 172 | 201 | 160 | 177 |
| 19 | 159 | 23 | 16 | 20 | 17 | 11 | 114 | 162 | 173 | 203 | 154 | 179 |
| 20 | 180 | 22 | 16 | 15 | 18 | 11 | 119 | 161 | 176 | 198 | 161 | 179 |
| 21 | 170 | 22 | 16 | 14 | 15 | 11 | 115 | 157 | 187 | 195 | 171 | 184 |
| 22 | 180 | 21 | 16 | 14 | 14 | 12 | 113 | 154 | 189 | 187 | 171 | 190 |
| 23 | 170 | 20 | 16 | 13 | 14 | 12 | 125 | 153 | 192 | 190 | 163 | 187 |
| 24 | 170 | 20 | 16 | 14 | 13 | 11 | 131 | 156 | 183 | 192 | 194 | 182 |
| 25 | 160 | 20 | 15 | 14 | 13 | 12 | 129 | 166 | 177 | 188 | 196 | 182 |
| 26 | 150 | 20 | 16 | 14 | 13 | 12 | 128 | 175 | 166 | 191 | 188 | 185 |
| 27 | 140 | 19 | 15 | 14 | 13 | 11 | 131 | 162 | 153 | 195 | 168 | 188 |
| 28 | 130 | 18 | 15 | 13 | 13 | 11 | 123 | 151 | 159 | 185 | 177 | 192 |
| 29 | 130 | 18 | 15 | 14 | 13 | 10 | 123 | 154 | 164 | 177 | 183 | 188 |
| 30 | 120 | 18 | 15 | 13 | --- | 11 | 136 | 147 | 167 | 182 | 187 | 174 |
| 31 | 110 | --- | 15 | 13 | --- | 11 | --- | 150 | --- | 185 | 180 | --- |
| TOTAL | 4944 | 939 | 547 | 539 | 384 | 369 | 1933.8 | 5002 | 5208 | 5900 | 5073 | 5748 |
| MEAN | 159 | 31.3 | 17.6 | 17.4 | 13.2 | 11.9 | 64.5 | 161 | 174 | 190 | 164 | 192 |
| MAX | 180 | 120 | 28 | 41 | 18 | 14 | 136 | 202 | 192 | 212 | 196 | 229 |
| MIN | 110 | 18 | 15 | 13 | 12 | 10 | 9.3 | 143 | 153 | 164 | 131 | 174 |
| AC-FT | 9810 | 1860 | 1080 | 1070 | 762 | 732 | 3840 | 9920 | 10330 | 11700 | 10060 | 11400 |

CAL YR 1979 TOTAL 35352.6 MEAN 96.9 MAX 220 MIN 6.4 AC-FT 70120
WTR YR 1980 TOTAL 36586.8 MEAN 100 MAX 229 MIN 9.3 AC-FT 72570

## 09153300 REED WASH NEAR LOMA, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1973 to current year.
WATER TEMPERATURES: April 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 10,500 micromhos Jan. 21, 22, 1974; minimum, 680 micromhos May 27, 1979.
WATER TEMPERATURES: Maximum, 28.0°C June 9, July 9, 10, 1973; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 6,280 micromhos Nov. 25; minimum, 814 micromhos June 5.
WATER TEMPERATURES: Maximum, 25.0°C several days in July and August; minimum, 0.5°C Jan. 31.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | |
| 20... | 1330 | 1.7 | 3000 | -- | 5.0 | -- | 1400 | 1300 |
| APR | | | | | | | | |
| 21... | 1015 | .95 | 2700 | 7.8 | 16.0 | 8.2 | 920 | 750 |
| MAY | | | | | | | | |
| 08... | 1300 | 2.5 | 3700 | 7.7 | 15.0 | 8.4 | 1300 | 1100 |
| AUG | | | | | | | | |
| 25... | 1430 | 6.6 | 2520 | -- | 24.0 | -- | 1100 | 1100 |
| 26... | 0825 | .10 | 3550 | 7.5 | 15.0 | -- | 1500 | 1400 |

| DATE | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | |
| 20... | 150 | 240 | 220 | 2.6 | 11 | 95 | 1600 | 23 | .4 |
| APR | | | | | | | | | |
| 21... | 170 | 120 | 300 | 4.3 | 6.1 | 170 | 1300 | 20 | .4 |
| MAY | | | | | | | | | |
| 08... | 170 | 220 | 440 | 5.3 | 6.2 | 250 | 1900 | 23 | .4 |
| AUG | | | | | | | | | |
| 25... | 210 | 150 | 180 | 2.3 | 14 | 68 | 1400 | 21 | .3 |
| 26... | 390 | 120 | 320 | 3.6 | 13 | 84 | 2100 | 27 | .4 |

| DATE | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | |
| 20... | 3.8 | 2310 | 3.14 | 10.6 | 1.2 | .020 | 220 | 30 |
| APR | | | | | | | | |
| 21... | 9.5 | 2030 | 2.76 | 5.21 | .19 | .060 | 140 | 20 |
| MAY | | | | | | | | |
| 08... | 13 | 2930 | 3.98 | 19.8 | .88 | .010 | 100 | 40 |
| AUG | | | | | | | | |
| 25... | 3.7 | 2030 | 2.76 | 36.2 | 1.3 | .010 | 90 | 60 |
| 26... | 5.5 | 3040 | 4.13 | .82 | 2.9 | .010 | 120 | 0 |

## 09153300 REED WASH NEAR LOMA, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1940 | 4110 | 4300 | 4910 | 4780 | 5090 | 5010 | 1170 | 1080 | 1550 | 1730 | 1610 |
| 2 | 1910 | 4300 | 4200 | 4920 | 4820 | 5100 | 4970 | 1150 | 1080 | 1540 | 1750 | 1600 |
| 3 | 1950 | 4000 | 4200 | 4940 | 4870 | 5110 | 4990 | 1150 | 1040 | 1530 | 1750 | 1650 |
| 4 | 1970 | 4300 | 4400 | 5030 | 4920 | 5100 | 4960 | 1150 | 1080 | 1520 | 1770 | 1720 |
| 5 | 1990 | 4490 | 4300 | 5060 | 4960 | 5080 | 5000 | 1100 | 935 | 1530 | 1780 | 1810 |
| 6 | 1990 | 4300 | 4600 | 5090 | 5020 | 5030 | 5150 | 1100 | 1090 | 1560 | 1790 | 1860 |
| 7 | 1970 | 4150 | 4550 | 4970 | 5060 | 4950 | 5180 | 1100 | 1100 | 1560 | 1860 | 1850 |
| 8 | 1960 | 4050 | 4500 | 5030 | 5110 | 4960 | 5100 | 1050 | 1100 | 1510 | 1820 | 1820 |
| 9 | 1950 | 4050 | 4660 | 5000 | 5150 | 4940 | 4630 | 1050 | 1110 | 1560 | 1800 | 1810 |
| 10 | 1950 | 4050 | 4700 | 3790 | 5200 | 4880 | 4440 | 1030 | 1110 | 1560 | 1800 | 1820 |
| 11 | 1960 | 4050 | 4740 | 2430 | 5260 | 4740 | 4440 | 1020 | 1120 | 1550 | 1820 | 1840 |
| 12 | 1960 | 4010 | 4720 | 3260 | 5320 | 4570 | 4370 | 999 | 1130 | 1580 | 1820 | 1890 |
| 13 | 1950 | 4050 | 4790 | 3340 | 5450 | 4550 | 4300 | 1030 | 1130 | 1590 | 1840 | 1860 |
| 14 | 1960 | 4050 | 5170 | 2350 | 5400 | 4480 | 4240 | 1020 | 1130 | 1560 | 1850 | 1880 |
| 15 | 1920 | 4000 | 4440 | 2390 | 5340 | 4370 | 4040 | 1000 | 1140 | 1580 | 1830 | 1870 |
| 16 | 1750 | 4060 | 4380 | 2960 | 5410 | 4260 | 3970 | 1080 | 1150 | 1580 | 1820 | 1860 |
| 17 | 1520 | 4000 | 4780 | 3380 | 5470 | 4200 | 3840 | 1020 | 1160 | 1520 | 1840 | 1880 |
| 18 | 1420 | 3950 | 4450 | 3540 | 5430 | 4280 | 3470 | 999 | 1160 | 1590 | 1800 | 1900 |
| 19 | 1510 | 3900 | 4570 | 3480 | 5310 | 4070 | 3890 | 1020 | 1170 | 1620 | 1860 | 1930 |
| 20 | 1830 | 3900 | 4700 | 3710 | 5200 | 4050 | 3560 | 1020 | 1170 | 1640 | 1850 | 1900 |
| 21 | 1900 | 3910 | 4630 | 3890 | 4770 | 4130 | 3530 | 1030 | 1180 | 1660 | 1820 | 1910 |
| 22 | 1900 | 4000 | 4750 | 4000 | 5130 | 3850 | 2300 | 1050 | 1180 | 1660 | 1790 | 1910 |
| 23 | 2300 | 4000 | 4740 | 4090 | 5100 | 3750 | 1320 | 1050 | 1190 | 1670 | 1810 | 1930 |
| 24 | 2500 | 4100 | 4700 | 4190 | 5080 | 4730 | 1300 | 1040 | 1240 | 1680 | 1800 | 1930 |
| 25 | 2410 | 4200 | 4620 | 4290 | 5090 | 4550 | 1300 | 910 | 1280 | 1680 | 1750 | 1940 |
| 26 | 3000 | 4060 | 4610 | 4380 | 5090 | 4500 | 1250 | 950 | 1350 | 1690 | 1740 | 1950 |
| 27 | 3000 | 4050 | 4870 | 4470 | 5090 | 4480 | 1250 | 950 | 1430 | 1680 | 1780 | 1950 |
| 28 | 3360 | 4000 | 4880 | 4540 | 5110 | 4520 | 1220 | 1020 | 1420 | 1690 | 1730 | 1970 |
| 29 | 3500 | 4100 | 4830 | 4570 | 5090 | 4700 | 1200 | 1020 | 1430 | 1700 | 1670 | 1980 |
| 30 | 3720 | 4200 | 4890 | 4530 | --- | 4600 | 1200 | 1080 | 1480 | 1710 | 1660 | 1980 |
| 31 | 3920 | --- | 4860 | 4740 | --- | 4800 | --- | 1070 | --- | 1720 | 1640 | --- |

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | --- | --- | | | --- | --- | 5.0 | 1.0 | 10.5 | 5.5 |
| 2 | --- | --- | --- | --- | | | --- | --- | 5.5 | 1.5 | 8.5 | 5.0 |
| 3 | 18.5 | 16.5 | --- | --- | | | --- | --- | 6.5 | 3.5 | 8.5 | 6.5 |
| 4 | --- | --- | --- | --- | | | --- | --- | 8.0 | 5.0 | 10.0 | 6.5 |
| 5 | --- | --- | --- | --- | | | --- | --- | 7.5 | 3.5 | 9.0 | 5.5 |
| 6 | --- | --- | 10.0 | 7.0 | | | --- | --- | 7.0 | 4.5 | 8.5 | 7.5 |
| 7 | --- | --- | 10.0 | 9.0 | | | --- | --- | 7.0 | 5.5 | 8.5 | 7.0 |
| 8 | --- | --- | 11.0 | 9.0 | | | --- | --- | 6.5 | 3.5 | 11.0 | 7.0 |
| 9 | --- | --- | 11.5 | 9.5 | | | --- | --- | 5.5 | 1.5 | 11.0 | 5.5 |
| 10 | --- | --- | 10.0 | 8.5 | | | 7.0 | 2.0 | 5.5 | 1.0 | 10.5 | 5.0 |
| 11 | --- | --- | 9.5 | 7.5 | | | 4.0 | 1.5 | 6.0 | 1.5 | 8.5 | 5.5 |
| 12 | --- | --- | --- | --- | | | 5.0 | 4.0 | 6.0 | 1.5 | 10.0 | 6.0 |
| 13 | --- | --- | --- | --- | | | 7.5 | 5.0 | 7.5 | 3.5 | 10.5 | 5.0 |
| 14 | 15.0 | 12.5 | --- | --- | | | 5.5 | 2.5 | 7.5 | 6.0 | 12.0 | 5.5 |
| 15 | --- | --- | --- | --- | | | 7.0 | 3.0 | 10.0 | 7.0 | 11.5 | 6.5 |
| 16 | 15.5 | 13.0 | 7.5 | 5.5 | | | 6.5 | 6.0 | 10.0 | 6.5 | 9.5 | 6.5 |
| 17 | 14.5 | 11.5 | --- | --- | | | 7.5 | 6.0 | 9.0 | 7.0 | --- | --- |
| 18 | --- | --- | 9.5 | 7.5 | | | 7.0 | 5.5 | 9.5 | 8.0 | --- | --- |
| 19 | --- | --- | 8.5 | 6.0 | | | 6.0 | 5.5 | 10.0 | 7.5 | --- | --- |
| 20 | --- | --- | 8.0 | 6.5 | | | 7.0 | 5.0 | 9.5 | 7.5 | --- | --- |
| 21 | --- | --- | 7.0 | 5.5 | | | 7.5 | 5.0 | 8.0 | 6.5 | --- | --- |
| 22 | --- | --- | --- | --- | | | 6.0 | 3.5 | 10.0 | 7.0 | 9.5 | 8.0 |
| 23 | --- | --- | --- | --- | | | 5.5 | 2.5 | 9.0 | 7.0 | 11.0 | 7.0 |
| 24 | --- | --- | --- | --- | | | 5.5 | 2.5 | 9.5 | 5.5 | 11.5 | 7.5 |
| 25 | --- | --- | --- | --- | | | 6.0 | 3.0 | 8.5 | 4.5 | 9.5 | 6.5 |
| 26 | --- | --- | --- | --- | | | 6.0 | 3.0 | 9.0 | 4.5 | 12.0 | 6.0 |
| 27 | --- | --- | --- | --- | | | 6.5 | 4.0 | 10.0 | 4.5 | 12.5 | 6.0 |
| 28 | --- | --- | --- | --- | | | 6.0 | 4.0 | 9.5 | 5.0 | 10.5 | 7.5 |
| 29 | --- | --- | --- | --- | | | 6.0 | 4.0 | 10.0 | 7.0 | 12.0 | 7.0 |
| 30 | --- | --- | --- | --- | | | 6.5 | 3.0 | --- | --- | 9.0 | 5.0 |
| 31 | --- | --- | --- | --- | | | 4.5 | .5 | --- | --- | --- | --- |

### 09153300 REED WASH NEAR LOMA, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 11.0 | 4.5 | 19.5 | 13.5 | 19.5 | 12.0 | 22.0 | 18.0 | 25.0 | 21.0 | 17.5 | 13.0 |
| 2 | 9.0 | 7.0 | 18.5 | 14.0 | 20.0 | 12.5 | 22.0 | 18.5 | 25.0 | 20.5 | 18.0 | 13.5 |
| 3 | 12.0 | 5.5 | 19.5 | 14.0 | 21.0 | 14.0 | 22.5 | 18.5 | 24.5 | 20.5 | 18.0 | 13.5 |
| 4 | 15.0 | 7.0 | 20.0 | 14.5 | 21.0 | 14.0 | 21.0 | 17.5 | 24.0 | 19.0 | 18.0 | 14.0 |
| 5 | 15.0 | 8.0 | 17.5 | 15.0 | 21.0 | 12.5 | 22.0 | 17.0 | 24.5 | 19.0 | 18.0 | 14.5 |
| 6 | 15.5 | 9.0 | 19.5 | 14.0 | --- | --- | 22.0 | 17.0 | 24.0 | 19.0 | 18.5 | 15.5 |
| 7 | 17.0 | 16.5 | 17.5 | 14.0 | 17.5 | 10.5 | 20.0 | 17.5 | 24.0 | 19.0 | 17.5 | 15.5 |
| 8 | 14.0 | 5.0 | 16.0 | 13.0 | --- | --- | 22.0 | 17.5 | 25.0 | 19.0 | 17.5 | 15.5 |
| 9 | 14.5 | 6.5 | 14.5 | 13.0 | --- | --- | 23.0 | 18.0 | 25.0 | 20.0 | 17.0 | 15.5 |
| 10 | 13.5 | 3.5 | 12.5 | 10.5 | --- | --- | 23.0 | 18.5 | --- | --- | 16.0 | 14.5 |
| 11 | 10.5 | 7.0 | 12.0 | 11.0 | --- | --- | 23.0 | 19.0 | --- | --- | 16.5 | 13.0 |
| 12 | 14.0 | 6.0 | 16.5 | 10.5 | --- | --- | 23.0 | 19.5 | --- | --- | 16.5 | 14.0 |
| 13 | 12.5 | 5.5 | 15.0 | 11.5 | --- | --- | 23.0 | 19.0 | --- | --- | 16.5 | 14.0 |
| 14 | 15.5 | 7.5 | 15.5 | 11.5 | --- | --- | 23.0 | 18.5 | --- | --- | 16.5 | 14.0 |
| 15 | 15.5 | 9.0 | 18.0 | 12.5 | 19.0 | 12.5 | 23.5 | 18.0 | 24.0 | 20.5 | 16.0 | 13.0 |
| 16 | 17.5 | 8.5 | 17.0 | 13.0 | 19.5 | 13.5 | 24.0 | 18.0 | 23.0 | 19.0 | 16.5 | 14.0 |
| 17 | 16.0 | 11.0 | 18.5 | 12.0 | --- | --- | 24.5 | 19.0 | 23.5 | 18.0 | 16.5 | 13.0 |
| 18 | 16.5 | 12.5 | 19.5 | 13.0 | --- | --- | 24.5 | 19.5 | 22.0 | 17.5 | 16.0 | 13.5 |
| 19 | 17.5 | 13.0 | 20.0 | 14.0 | --- | --- | 24.5 | 20.5 | 18.0 | 15.5 | 16.0 | 13.5 |
| 20 | 18.0 | 12.5 | 21.5 | 15.0 | 20.5 | 15.5 | 25.0 | 19.0 | 18.0 | 14.0 | 16.0 | 13.5 |
| 21 | 15.5 | 14.5 | 20.0 | 15.5 | --- | --- | 25.0 | 20.0 | 18.5 | 14.0 | --- | --- |
| 22 | 17.5 | 14.0 | 19.5 | 15.0 | 20.5 | 16.5 | 25.0 | 19.0 | 18.0 | 14.0 | --- | --- |
| 23 | 20.0 | 13.5 | 17.0 | 14.0 | 20.5 | 15.5 | 24.5 | 20.5 | 17.5 | 15.5 | --- | --- |
| 24 | 21.0 | 11.0 | 16.0 | 13.0 | --- | --- | 24.5 | 20.0 | 18.0 | 15.5 | --- | --- |
| 25 | --- | --- | 13.0 | 12.0 | --- | --- | 24.5 | 19.5 | 18.0 | 15.5 | --- | --- |
| 26 | 17.5 | 11.5 | --- | --- | 21.0 | 17.0 | 24.5 | 19.0 | 19.0 | 14.5 | --- | --- |
| 27 | 18.5 | 14.5 | 20.0 | 12.5 | 21.0 | 16.5 | 24.5 | 19.0 | 19.0 | 14.5 | --- | --- |
| 28 | 18.0 | 13.0 | 20.5 | 13.5 | --- | --- | 25.0 | 19.0 | 19.0 | 15.0 | --- | --- |
| 29 | 16.5 | 13.5 | 21.5 | 13.0 | --- | --- | 24.0 | 19.0 | 17.5 | 15.0 | --- | --- |
| 30 | 17.5 | 13.0 | 21.5 | 13.0 | --- | --- | 25.0 | 20.0 | 18.5 | 14.5 | --- | --- |
| 31 | --- | --- | 20.0 | 12.0 | --- | --- | 25.0 | 20.0 | 17.5 | 14.0 | --- | --- |

## 09153330 WEST SALT CREEK NEAR CARBONERA, CO

LOCATION.--Lat 39°23'47", long 108°58'51", in NW¼SW¼ sec.3, T.8 S., R.104 W., Garfield County, Hydrologic Unit 14010005, on right bank 4.5 mi (7.2 km) south of Carbonera, 32 mi (51 km) northwest of Grand Junction.

DRAINAGE AREA.--95.6 mi² (247.6 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 5,082 ft (1.549 m) from topographic map.

REMARKS.--Records fair except those for period of no gage-height record or stage discharge relation indefinite, which are poor. No diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33 ft³/s (0.935 m³/s) Aug. 23, 1980, gage height, 2.80 ft (0.853 m), from highwater mark; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft³/s (0.57 m³/s) and maximum (*):

| Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) | Date | Time | Discharge (ft³/s) | Discharge (m³/s) | Gage height (ft) | Gage height (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| May 11 | 0300 | 20 | 0.57 | 2.47 | 0.753 | Aug. 23 | - | *33 | 0.93 | 2.80 | 0.853 |

No flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.9 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.7 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.7 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 6.2 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 8.5 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 9.3 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .05 | .00 | 9.6 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .10 | .00 | 7.7 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .10 | .00 | 1.0 | .00 | .00 | .00 | .36 |
| 10 | .00 | .00 | .00 | .00 | .00 | .05 | .00 | 3.4 | .00 | .00 | .00 | .09 |
| 11 | .00 | .00 | .00 | .00 | .00 | .05 | .00 | 12 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .00 | .00 | .00 | .32 | .00 | 15 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .04 | .00 | 8.7 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .86 | .01 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .04 | .00 | .00 | .00 | .00 | .00 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 | .00 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .00 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | .50 | .00 | .99 | .00 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | 1.0 | .00 | .63 | .00 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | 5.0 | .00 | .20 | .00 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | .10 | .00 | 1.0 | .00 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .10 | .00 | 3.3 | .00 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .10 | .00 | 6.7 | .00 | .00 | .00 | 1.0 | .00 |
| 24 | .00 | .00 | .00 | .00 | .05 | .00 | 7.2 | .00 | .00 | .00 | .06 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .10 | 3.9 | .00 | .00 | .00 | 6.0 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .05 | 3.7 | .00 | .00 | .00 | .06 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | 3.1 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | 3.4 | .00 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | 4.1 | .00 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | 5.5 | .00 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | 6.85 | .92 | 43.77 | 100.56 | .01 | .00 | 7.12 | .45 |
| MEAN | .000 | .000 | .000 | .000 | .24 | .030 | 1.46 | 3.24 | .000 | .000 | .23 | .015 |
| MAX | .00 | .00 | .00 | .00 | 5.0 | .32 | 7.2 | 15 | .01 | .00 | 6.0 | .36 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | 14 | 1.8 | 87 | 199 | .02 | .00 | 14 | .9 |

WTR YR 1980 TOTAL 159.68 MEAN .44 MAX 15 MIN .00 AC-FT 317

NOTE.--NO GAGE-HEIGHT RECORD AUG. 23-25.

## 09153330 WEST SALT CREEK NEAR CARBONERA, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1980

INSTRUMENTATION.--Pumping sampler.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | OXYGEN, DISSOLVED (MG/L) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | |
| 20... | 1330 | 1.7 | 3000 | -- | 5.0 | -- | 1400 | 1300 |
| APR | | | | | | | | |
| 21... | 1015 | .95 | 2700 | 7.8 | 16.0 | 8.2 | 920 | 750 |
| MAY | | | | | | | | |
| 08... | 1300 | 2.5 | 3700 | 7.7 | 15.0 | 8.4 | 1300 | 1100 |
| AUG | | | | | | | | |
| 25... | 1430 | 6.6 | 2520 | -- | 24.0 | -- | 1100 | 1100 |
| 26... | 0825 | .10 | 3550 | 7.5 | 15.0 | -- | 1500 | 1400 |

| DATE | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | |
| 20... | 150 | 240 | 220 | 2.6 | 11 | 95 | 1600 | 23 | .4 |
| APR | | | | | | | | | |
| 21... | 170 | 120 | 300 | 4.3 | 6.1 | 170 | 1300 | 20 | .4 |
| MAY | | | | | | | | | |
| 08... | 170 | 220 | 440 | 5.3 | 6.2 | 250 | 1900 | 23 | .4 |
| AUG | | | | | | | | | |
| 25... | 210 | 150 | 180 | 2.3 | 14 | 68 | 1400 | 27 | .3 |
| 26... | 390 | 120 | 320 | 3.6 | 13 | 84 | 2100 | 27 | .4 |

| DATE | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | IRON, DISSOLVED (UG/L AS FE) | MANGANESE, DISSOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | |
| 20... | 3.8 | 2310 | 3.14 | 10.6 | 1.2 | .020 | 220 | 30 |
| APR | | | | | | | | |
| 21... | 9.5 | 2030 | 2.76 | 5.21 | .19 | .060 | 140 | 20 |
| MAY | | | | | | | | |
| 08... | 13 | 2930 | 3.98 | 19.8 | .88 | .010 | 100 | 40 |
| AUG | | | | | | | | |
| 25... | 3.7 | 2030 | 2.76 | 36.2 | 1.3 | .010 | 90 | 60 |
| 26... | 5.5 | 3040 | 4.13 | .82 | 2.9 | .010 | 120 | 0 |

## 09153400 WEST SALT CREEK NEAR MACK, CO

LOCATION.--Lat 39°18'31", long 108°58'59", in SW¼NE¼ sec.3, T.9 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank at upstream side of bridge, 0.8 mi (1.3 km) downstream from Prairie Canyon, and 8.7 mi (14.0 km) northwest of Mack.

DRAINAGE AREA.--168 mi² (435 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year.

REVISED RECORDS.--WDR CO-75-2: 1974.

GAGE.--Water-stage recorder. Altitude of gage is 4,740 ft (1,445 m), from topographic map.

REMARKS.--Records good. No diversion above station. A few stock ponds on tributaries above station.

AVERAGE DISCHARGE.--7 years, 0.47 ft³/s (0.013 m³/s), 341 acre-ft/yr (420,000 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,400 ft³/s (39.6 m³/s) Aug. 8, 1974, gage height, 7.0 ft (2.13 m), from floodmarks, from rating curve extended above 110 ft³/s (3.1 m³/s); no flow most of time each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 224 ft³/s (6.34 m³/s) at 1530 Aug. 25, gage height, 3.66 ft (1.116 m), only peak above base of 75 ft³/s (2.1 m³/s) revised; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.4 | .00 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .72 | .00 | .00 | .00 | .00 |
| 3 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .22 | .00 | .00 | .00 | .00 |
| 4 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .84 | .00 | .00 | .00 | .00 |
| 5 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .93 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 | .00 | .00 | .00 | .00 |
| 7 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .00 |
| 8 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 1.2 | .00 | .00 | .00 | .00 |
| 9 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.7 | .00 | .00 | .00 | .00 |
| 10 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.9 | .00 | .00 | .00 | 1.6 |
| 11 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 16 | .00 | .00 | .00 | .70 |
| 12 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 22 | .00 | .00 | .00 | .00 |
| 13 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | .00 | .00 | .00 | .00 |
| 14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 5.5 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 3.5 | .00 | .00 | 1.7 | .00 |
| 16 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 4.0 | .00 | .00 | .20 | .00 |
| 17 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 2.4 | .00 | .00 | .00 | .00 |
| 18 | .00 | .00 | .00 | .00 | 20 | .00 | .00 | 1.7 | .00 | .00 | .00 | .00 |
| 19 | .00 | .00 | .00 | .00 | 2.5 | .00 | .00 | 1.2 | .00 | .00 | .00 | .00 |
| 20 | .00 | .00 | .00 | .00 | 64 | .00 | .00 | .94 | .00 | .00 | .00 | .00 |
| 21 | .00 | .00 | .00 | .00 | 2.0 | .00 | .05 | .54 | .00 | .00 | .00 | .00 |
| 22 | .00 | .00 | .00 | .00 | .98 | .00 | .71 | .29 | .00 | .00 | .00 | .00 |
| 23 | .00 | .00 | .00 | .00 | .02 | .00 | 1.5 | .41 | .00 | .00 | 9.6 | .00 |
| 24 | .00 | .00 | .00 | .00 | .00 | .00 | 2.1 | .59 | .00 | .00 | 4.1 | .00 |
| 25 | .00 | .00 | .00 | .00 | .00 | .00 | .80 | .84 | .00 | .00 | 14 | .00 |
| 26 | .00 | .00 | .00 | .00 | .00 | .00 | .31 | .79 | .00 | .00 | .57 | .00 |
| 27 | .00 | .00 | .00 | .00 | .00 | .00 | .06 | 1.2 | .00 | .00 | .01 | .00 |
| 28 | .00 | .00 | .00 | .00 | .00 | .00 | .01 | .60 | .00 | .00 | .00 | .00 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | .02 | .30 | .00 | .00 | .00 | .00 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | .22 | .15 | .00 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .00 | --- | .00 | .00 | --- |
| TOTAL | .00 | .00 | .00 | .00 | 89.50 | .00 | 5.78 | 86.89 | .00 | .00 | 30.18 | 2.30 |
| MEAN | .000 | .000 | .000 | .000 | 3.09 | .000 | .19 | 2.80 | .000 | .000 | .97 | .077 |
| MAX | .00 | .00 | .00 | .00 | 64 | .00 | 2.1 | 22 | .00 | .00 | 14 | 1.6 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| AC-FT | .00 | .00 | .00 | .00 | 178 | .00 | 11 | 172 | .00 | .00 | 60 | 4.6 |

CAL YR 1979 TOTAL 215.57 MEAN .59 MAX 31 MIN .00 AC-FT 428
WTR YR 1980 TOTAL 214.65 MEAN .59 MAX 64 MIN .00 AC-FT 426

## 09153400 WEST SALT CREEK NEAR MACK, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1973 to current year.
WATER TEMPERATURES: September 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1973.

REMARKS.--No flow during most of period of record. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 12,600 micromhos Mar. 10, 1974; minimum, 260 micromhos Nov. 11, 1979.
WATER TEMPERATURES: Maximum, 24.5°C July 19, 1974; minimum, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 8,160 micromhos Aug. 23; minimum recorded, 262 micromhos Aug. 27.
WATER TEMPERATURES: Maximum recorded, 33.0°C May 21; minimum recorded 2.0°C February 23.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| FEB 19... | 1045 | 5.6 | 5100 | 8.1 | 7.0 | -- | 2500 | 2400 |
| APR 21... | 1220 | .12 | 7000 | 8.1 | 25.0 | 6.2 | 740 | 430 |
| AUG 25... | 1540 | 120 | 4600 | 7.2 | 24.0 | -- | 2400 | 2300 |

| DATE | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| FEB 19... | 260 | 450 | 530 | 4.6 | 12 | 130 | 3500 | 47 | .5 |
| APR 21... | 100 | 120 | 340 | 5.4 | 4.3 | 310 | 4300 | 80 | .5 |
| AUG 25... | 430 | 320 | 360 | 3.2 | 12 | 52 | 3000 | 32 | .4 |

| DATE | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| FEB 19... | 6.6 | 4890 | 6.65 | 73.9 | 1.5 | .030 | 50 | 30 |
| APR 21... | 11 | 5140 | 6.99 | 1.67 | .13 | .150 | 540 | 30 |
| AUG 25... | 3.7 | 4200 | 5.71 | 1360 | 1.3 | .010 | 80 | 70 |

## 09153400 WEST SALT CREEK NEAR MACK, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | --- | | --- | 4140 | | | --- | |
| 2 | | | | | --- | | --- | 4030 | | | --- | |
| 3 | | | | | --- | | --- | 4040 | | | --- | |
| 4 | | | | | --- | | --- | 4080 | | | --- | |
| 5 | | | | | --- | | --- | 4020 | | | --- | |
| 6 | | | | | --- | | --- | 3930 | | | --- | |
| 7 | | | | | --- | | --- | 3860 | | | --- | |
| 8 | | | | | --- | | --- | 4170 | | | --- | |
| 9 | | | | | --- | | --- | 5790 | | | --- | |
| 10 | | | | | --- | | --- | 5690 | | | --- | |
| 11 | | | | | --- | | --- | 6210 | | | --- | |
| 12 | | | | | --- | | --- | 4380 | | | --- | |
| 13 | | | | | --- | | --- | 3080 | | | --- | |
| 14 | | | | | --- | | --- | 2990 | | | --- | |
| 15 | | | | | --- | | --- | 2970 | | | 4320 | |
| 16 | | | | | --- | | --- | 2970 | | | 1950 | |
| 17 | | | | | --- | | --- | 2950 | | | 812 | |
| 18 | | | | | --- | | --- | 2910 | | | --- | |
| 19 | | | | | 5780 | | --- | 2890 | | | --- | |
| 20 | | | | | 3020 | | --- | 2880 | | | --- | |
| 21 | | | | | 4160 | | 7150 | 2860 | | | --- | |
| 22 | | | | | 4180 | | 6740 | 2840 | | | --- | |
| 23 | | | | | 4360 | | 6250 | 2780 | | | 5070 | |
| 24 | | | | | 3200 | | 6240 | 2670 | | | 4020 | |
| 25 | | | | | --- | | 6280 | 2720 | | | 4120 | |
| 26 | | | | | --- | | 6270 | 2770 | | | 2840 | |
| 27 | | | | | --- | | 6360 | 2860 | | | 360 | |
| 28 | | | | | --- | | 6540 | 3050 | | | --- | |
| 29 | | | | | --- | | 4630 | 3360 | | | --- | |
| 30 | | | | | --- | | 4150 | 3780 | | | --- | |
| 31 | | | | | --- | | --- | --- | | | --- | |

## 09153400 WEST SALT CREEK NEAR MACK, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | | | | | | | | | --- | --- | | |
| 2 | | | | | | | | | --- | --- | | |
| 3 | | | | | | | | | --- | --- | | |
| 4 | | | | | | | | | --- | --- | | |
| 5 | | | | | | | | | --- | --- | | |
| 6 | | | | | | | | | --- | --- | | |
| 7 | | | | | | | | | --- | --- | | |
| 8 | | | | | | | | | --- | --- | | |
| 9 | | | | | | | | | --- | --- | | |
| 10 | | | | | | | | | --- | --- | | |
| 11 | | | | | | | | | --- | --- | | |
| 12 | | | | | | | | | --- | --- | | |
| 13 | | | | | | | | | --- | --- | | |
| 14 | | | | | | | | | --- | --- | | |
| 15 | | | | | | | | | --- | --- | | |
| 16 | | | | | | | | | --- | --- | | |
| 17 | | | | | | | | | --- | --- | | |
| 18 | | | | | | | | | --- | --- | | |
| 19 | | | | | | | | | 14.0 | 7.5 | | |
| 20 | | | | | | | | | 7.0 | 3.0 | | |
| 21 | | | | | | | | | 5.0 | 2.0 | | |
| 22 | | | | | | | | | 13.0 | 3.5 | | |
| 23 | | | | | | | | | 11.5 | 2.0 | | |
| 24 | | | | | | | | | --- | --- | | |
| 25 | | | | | | | | | --- | --- | | |
| 26 | | | | | | | | | --- | --- | | |
| 27 | | | | | | | | | --- | --- | | |
| 28 | | | | | | | | | --- | --- | | |
| 29 | | | | | | | | | --- | --- | | |
| 30 | | | | | | | | | --- | --- | | |
| 31 | | | | | | | | | --- | --- | | |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 24.5 | 11.0 | | | | | --- | --- | | |
| 2 | --- | --- | 30.0 | 10.5 | | | | | --- | --- | | |
| 3 | --- | --- | 30.5 | 9.5 | | | | | --- | --- | | |
| 4 | --- | --- | 25.0 | 12.5 | | | | | --- | --- | | |
| 5 | --- | --- | 26.0 | 12.0 | | | | | --- | --- | | |
| 6 | --- | --- | 29.0 | 12.5 | | | | | --- | --- | | |
| 7 | --- | --- | 24.5 | 13.5 | | | | | --- | --- | | |
| 8 | --- | --- | 26.0 | 13.5 | | | | | --- | --- | | |
| 9 | --- | --- | 22.5 | 12.5 | | | | | --- | --- | | |
| 10 | --- | --- | 21.5 | 12.5 | | | | | --- | --- | | |
| 11 | --- | --- | 16.0 | 10.5 | | | | | --- | --- | | |
| 12 | --- | --- | 11.0 | 8.5 | | | | | --- | --- | | |
| 13 | --- | --- | 24.5 | 6.5 | | | | | --- | --- | | |
| 14 | --- | --- | 23.5 | 9.0 | | | | | --- | --- | | |
| 15 | --- | --- | 24.5 | 10.0 | | | | | 31.0 | 17.5 | | |
| 16 | --- | --- | 26.5 | 12.5 | | | | | 32.0 | 14.5 | | |
| 17 | --- | --- | 22.0 | 10.5 | | | | | 16.5 | 15.5 | | |
| 18 | --- | --- | 29.5 | 8.0 | | | | | --- | --- | | |
| 19 | --- | --- | 30.5 | 10.5 | | | | | --- | --- | | |
| 20 | --- | --- | 32.0 | 11.5 | | | | | --- | --- | | |
| 21 | 27.0 | 13.5 | 33.0 | 13.0 | | | | | --- | --- | | |
| 22 | 26.0 | 9.0 | 29.0 | 14.0 | | | | | --- | --- | | |
| 23 | 22.C | 11.0 | 28.5 | 12.0 | | | | | 20.0 | 20.0 | | |
| 24 | 22.0 | 9.0 | 19.0 | 8.5 | | | | | 28.5 | 19.0 | | |
| 25 | 28.5 | 7.5 | 19.5 | 6.0 | | | | | 27.0 | 17.5 | | |
| 26 | 29.0 | 7.0 | 28.0 | 5.0 | | | | | 32.5 | 14.5 | | |
| 27 | 31.0 | 6.0 | 25.0 | 8.0 | | | | | 17.5 | 14.0 | | |
| 28 | 31.5 | 7.5 | 29.5 | 9.0 | | | | | --- | --- | | |
| 29 | 22.0 | 11.5 | 28.0 | 9.0 | | | | | --- | --- | | |
| 30 | 27.5 | 11.0 | 32.0 | 9.5 | | | | | --- | --- | | |
| 31 | --- | --- | --- | --- | | | | | --- | --- | | |

## 09160000 BADGER WASH OBSERVATION RESERVOIR 4-A NEAR MACK, CO

LOCATION.--Lat 39°19'52", long 108°55'49", in NE¼NE¼ sec.36, T.8 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank just upstream from Prairie Dog Reservoir and 8 mi (12.9 m) northwest of Mack.

DRAINAGE AREA.--0.022 mi² (0.057 km²).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum discharge, water years 1954-73, published in WDR CO 1971. May 1976 to current year.

GAGE.--Water-stage recorder and 18-inch Parshall flume. Altitude of gage is 4,940 ft (1,506 m), from topographic map. September 1954, to September 1973, nonrecording gage at present site and datum.

REMARKS.--Records good. No diversions above station.

COOPERATION.--Maximum discharge for period of record furnished by U.S. Bureau of Land Management.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48 ft³/s (1.36 m³/s) July 12, 1965; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--No flow for entire year.

## 09160500 BADGER WASH OBSERVATION RESERVOIR 12 NEAR MACK, CO

LOCATION.--Lat 39°19'24", long 108°55'48", in NE¼NE¼ sec.36, T.8 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank just upstream from Middle Basin Reservoir and 7.5 mi (12.1 km) northwest of Mack.

DRAINAGE AREA.--0.092 mi² (0.238 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1976 to current year.

GAGE.--Water-stage recorder and 18-inch Parshall flume. Altitude of gage is 4,865 ft (1,483 m), from topographic map.

REMARKS.--Records poor. No diversions above gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 25 ft³/s (0.71 m³/s) Oct. 6, 1977; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--No flow for entire year.

## 09161000 BADGER WASH OBSERVATION RESERVOIR 2-A NEAR MACK, CO

LOCATION.--Lat 39°19'46", long 108°56'33", in NW¼NW¼ sec.36, T.8 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on left bank just upstream from West Twin Reservoir and 8.3 mi (13.4 km) northwest of Mack.

DRAINAGE AREA.--0.148 mi² (0.383 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum discharge, water years 1954-73, pbulished in WDR CO 1971. May 1976 to current year.

GAGE.--Water-stage recorder and 2-ft Parshall flume. Altitude of gage is 4,935 ft (1,504 m), from topographic map. September 1954, to September 1971, nonrecording gage at present site and datum.

REMARKS.--Records poor. No diversions above station.

COOPERATION.--Maximum discharge for period of record furnished by U.S. Bureau of Land Management.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 262 ft³/s (7.42 m³/s) July 25, 1965; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--No flow for entire year.

## 09163050 BADGER WASH NEAR MACK, CO

LOCATION.--Lat 39°17'36", long 108°55'59", in NE¼NW¼ sec.7, T.9 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on left bank 250 ft (76 m) upstream from bridge, 2.9 mi (4.7 km) upstream from mouth, and 6.0 mi (9.7 km) northwest of Mack.

DRAINAGE AREA.--6.51 mi² (16.86 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,690 ft (1,430 m), from topographic map.

REMARKS.--Records good. Flow is mostly water wasted into creek 300 ft (91 m) above gage from Government Highline Canal. Natural flow of stream affected by numerous small detention reservoirs on tributaries upstream. No known diversion above gage.

AVERAGE DISCHARGE.--7 years, 6.93 ft³/s (0.196 m³/s), 5,020 acre-ft/yr (6.19 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 618 ft³/s (17.5 m³/s) July 4, 1977, gage height, 4.75 ft (1.448 m), from rating curve extended above 60 ft³/s (1.7 m³/s); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66 ft³/s (1.87 m³/s) at 0030 May 3, gage height, 3.26 ft (0.994 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16 | .00 | .00 | .00 | .00 | .00 | .00 | 35 | 22 | 1.0 | 1.0 | 15 |
| 2 | 16 | .00 | .00 | .00 | .00 | .00 | .00 | 49 | 20 | 1.8 | 3.5 | 12 |
| 3 | 15 | .00 | .00 | .00 | .00 | .00 | .00 | 60 | 16 | 1.5 | 6.8 | 11 |
| 4 | 14 | .00 | .00 | .00 | .00 | .00 | .00 | 56 | 15 | 2.5 | 10 | 16 |
| 5 | 16 | .00 | .00 | .00 | .00 | .00 | .00 | 49 | 15 | 3.1 | 5.6 | 18 |
| 6 | 17 | .00 | .00 | .00 | .00 | .00 | .00 | 32 | 13 | 4.1 | .44 | 19 |
| 7 | 17 | .00 | .00 | .00 | .00 | .00 | .00 | 28 | 13 | 4.5 | .14 | 15 |
| 8 | 17 | .00 | .00 | .00 | .00 | .00 | .00 | 24 | 14 | 1.9 | .20 | 14 |
| 9 | 20 | .00 | .00 | .00 | .00 | .00 | .00 | 28 | 14 | .78 | .18 | 13 |
| 10 | 22 | .00 | .00 | .00 | .00 | .00 | .00 | 34 | 12 | 1.8 | .27 | 12 |
| 11 | 22 | .00 | .00 | .00 | .00 | .00 | .00 | 34 | 11 | 2.1 | .39 | 12 |
| 12 | 23 | .00 | .00 | .00 | .00 | .00 | .00 | 45 | 9.7 | 3.9 | .18 | 12 |
| 13 | 22 | .00 | .00 | .00 | .00 | .00 | .00 | 50 | 8.8 | 5.6 | .72 | 14 |
| 14 | 22 | .00 | .00 | .00 | .00 | .00 | .00 | 56 | 10 | 4.9 | .32 | 14 |
| 15 | 22 | .00 | .00 | .00 | .00 | .00 | .00 | 50 | 10 | 7.6 | 7.0 | 15 |
| 16 | 23 | .00 | .00 | .00 | .00 | .00 | .00 | 40 | 14 | 7.5 | 8.0 | 16 |
| 17 | 25 | .00 | .00 | .00 | .00 | .00 | .00 | 32 | 13 | 4.0 | 9.0 | 15 |
| 18 | 26 | .00 | .00 | .00 | .00 | .00 | 16 | 38 | 12 | 3.8 | 7.2 | 17 |
| 19 | 29 | .00 | .00 | .00 | .00 | .00 | 53 | 34 | 10 | 4.9 | 6.6 | 14 |
| 20 | 31 | .00 | .00 | .00 | .00 | .00 | 52 | 30 | 8.1 | 5.4 | 9.7 | 15 |
| 21 | 32 | .00 | .00 | .00 | .00 | .00 | 51 | 23 | 5.9 | 4.1 | 9.2 | 16 |
| 22 | 28 | .00 | .00 | .00 | .00 | .00 | 50 | 24 | 5.4 | 1.1 | 7.0 | 13 |
| 23 | 24 | .00 | .00 | .00 | .00 | .00 | 48 | 34 | 2.8 | .21 | 2.2 | 12 |
| 24 | 24 | .00 | .00 | .00 | .00 | .00 | 37 | 32 | 1.1 | .51 | 5.5 | 13 |
| 25 | 24 | .00 | .00 | .00 | .00 | .00 | 32 | 20 | 2.2 | 1.9 | 12 | 14 |
| 26 | 20 | .00 | .00 | .00 | .00 | .00 | 30 | 18 | 2.2 | 8.6 | 14 | 14 |
| 27 | 8.9 | .00 | .00 | .00 | .00 | .00 | 44 | 16 | 1.9 | 11 | 16 | 15 |
| 28 | .10 | .00 | .00 | .00 | .00 | .00 | 42 | 12 | 1.7 | 8.0 | 16 | 15 |
| 29 | .00 | .00 | .00 | .00 | .00 | .00 | 34 | 11 | 2.2 | 7.0 | 14 | 14 |
| 30 | .00 | .00 | .00 | .00 | --- | .00 | 28 | 23 | 2.1 | 3.2 | 14 | 12 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | 22 | --- | 1.9 | 14 | --- |
| TOTAL | 576.00 | .00 | .00 | .00 | .00 | .00 | 517.00 | 1039 | 288.1 | 120.20 | 201.14 | 427 |
| MEAN | 18.6 | .000 | .000 | .000 | .000 | .000 | 17.2 | 33.5 | 9.60 | 3.88 | 6.49 | 14.2 |
| MAX | 32 | .00 | .00 | .00 | .00 | .00 | 53 | 60 | 22 | 11 | 16 | 19 |
| MIN | .00 | .00 | .00 | .00 | .00 | .00 | .00 | 11 | 1.1 | .21 | .14 | 11 |
| AC-FT | 1140 | .00 | .00 | .00 | .00 | .00 | 1030 | 2060 | 571 | 238 | 399 | 847 |

CAL YR 1979 TOTAL 2653.82 MEAN 7.27 MAX 54 MIN .00 AC-FT 5260
WTR YR 1980 TOTAL 3168.44 MEAN 8.66 MAX 60 MIN .00 AC-FT 6280

## 09163050 BADGER WASH NEAR MACK, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1973 to current year.
WATER TEMPERATURES: June 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since June 1973.

REMARKS.--No flow during most of period November to April each year. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,920 micromhos Nov. 1, 1974; minimum, 228 micromhos June 14, 1978.
WATER TEMPERATURES: Maximum, 33.5°C July 20, 1978; minimum, 4.0°C Oct. 29, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1,930 micromhos Aug. 14; minimum recorded, 331 micromhos June 7.
WATER TEMPERATURES: Maximum recorded, 29.5°C July 24, Aug. 9; minimum recorded recorded, 10.0°C May 13.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| OCT 16... | 0915 | 25 | 1060 | 7.7 | 13.0 | 9.2 | 250 | 110 |
| APR 22... | 0720 | 56 | 880 | 8.1 | 13.0 | 9.8 | 240 | 99 |
| JUL 15... | 0750 | 6.8 | 590 | 7.8 | 19.5 | 7.8 | 180 | 65 |

| DATE | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| OCT 16... | 75 | 16 | 130 | 3.6 | 4.3 | 140 | 160 | 170 | .4 |
| APR 22... | 66 | 18 | 89 | 2.5 | 3.5 | 140 | 150 | 110 | .3 |
| JUL 15... | 52 | 11 | 56 | 1.8 | 2.5 | 110 | 94 | 67 | .3 |
| JUL 17... | 150 | 58 | 120 | 2.1 | 4.3 | 160 | 570 | 97 | .4 |

| DATE | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| NOV 07... | 13 | 3740 | 5.09 | 273 | 8.2 | .090 | 40 | 110 |

## 09163050 BADGER WASH NEAR MACK, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1150 | | | | | | --- | 548 | 364 | 475 | 910 | 1000 |
| 2 | 1070 | | | | | | --- | 558 | 363 | 450 | 925 | 1020 |
| 3 | 1050 | | | | | | --- | 533 | 363 | 463 | 915 | 1010 |
| 4 | --- | | | | | | --- | 531 | 365 | 452 | 926 | 1000 |
| 5 | --- | | | | | | --- | 536 | 365 | 450 | 946 | 995 |
| 6 | --- | | | | | | --- | 537 | 354 | 458 | 1180 | 1000 |
| 7 | --- | | | | | | --- | 523 | 338 | 480 | 1410 | 1000 |
| 8 | --- | | | | | | --- | 520 | 344 | 526 | 1300 | 966 |
| 9 | --- | | | | | | --- | 503 | 369 | 574 | 1320 | 959 |
| 10 | --- | | | | | | --- | 489 | 395 | 574 | 1120 | 975 |
| 11 | --- | | | | | | --- | 481 | 404 | 572 | 1090 | 1010 |
| 12 | --- | | | | | | --- | 475 | 400 | 572 | 1210 | 1040 |
| 13 | --- | | | | | | --- | 478 | 377 | 576 | 1100 | 1020 |
| 14 | --- | | | | | | --- | 453 | 366 | 580 | 1370 | 1000 |
| 15 | --- | | | | | | --- | 428 | 351 | 572 | 1020 | 998 |
| 16 | --- | | | | | | --- | 420 | 345 | 562 | 1010 | 997 |
| 17 | --- | | | | | | --- | 422 | 353 | 588 | 988 | 929 |
| 18 | --- | | | | | | 1590 | 428 | 359 | 612 | 943 | 928 |
| 19 | --- | | | | | | 1450 | 428 | 369 | 636 | 904 | 960 |
| 20 | --- | | | | | | 1300 | 419 | 394 | 658 | 917 | 971 |
| 21 | --- | | | | | | 1080 | 423 | 376 | 680 | 931 | 962 |
| 22 | --- | | | | | | 843 | 427 | 361 | 744 | 961 | 977 |
| 23 | --- | | | | | | 768 | 421 | 366 | 845 | 1030 | 980 |
| 24 | --- | | | | | | 768 | 397 | 390 | 794 | 1030 | 981 |
| 25 | --- | | | | | | 675 | 369 | 369 | 763 | 1050 | 998 |
| 26 | --- | | | | | | 594 | 350 | 370 | 766 | 1050 | 1020 |
| 27 | --- | | | | | | 579 | 344 | 378 | 791 | 1020 | 1040 |
| 28 | --- | | | | | | 593 | 355 | 389 | 793 | 996 | 1030 |
| 29 | --- | | | | | | 589 | 363 | 395 | 799 | 981 | 1070 |
| 30 | --- | | | | | | 563 | 368 | 396 | 822 | 980 | 1090 |
| 31 | --- | | | | | | --- | 367 | --- | 861 | 975 | --- |

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | | | | | | | | | | |
| 2 | 23.0 | 20.0 | | | | | | | | | | |
| 3 | 22.0 | 18.5 | | | | | | | | | | |
| 4 | --- | --- | | | | | | | | | | |
| 5 | --- | --- | | | | | | | | | | |
| 6 | --- | --- | | | | | | | | | | |
| 7 | --- | --- | | | | | | | | | | |
| 8 | --- | --- | | | | | | | | | | |
| 9 | --- | --- | | | | | | | | | | |
| 10 | --- | --- | | | | | | | | | | |
| 11 | --- | --- | | | | | | | | | | |
| 12 | --- | --- | | | | | | | | | | |
| 13 | --- | --- | | | | | | | | | | |
| 14 | --- | --- | | | | | | | | | | |
| 15 | --- | --- | | | | | | | | | | |
| 16 | --- | --- | | | | | | | | | | |
| 17 | --- | --- | | | | | | | | | | |
| 18 | --- | --- | | | | | | | | | | |
| 19 | --- | --- | | | | | | | | | | |
| 20 | --- | --- | | | | | | | | | | |
| 21 | --- | --- | | | | | | | | | | |
| 22 | --- | --- | | | | | | | | | | |
| 23 | --- | --- | | | | | | | | | | |
| 24 | --- | --- | | | | | | | | | | |
| 25 | --- | --- | | | | | | | | | | |
| 26 | --- | --- | | | | | | | | | | |
| 27 | --- | --- | | | | | | | | | | |
| 28 | --- | --- | | | | | | | | | | |
| 29 | --- | --- | | | | | | | | | | |
| 30 | --- | --- | | | | | | | | | | |
| 31 | --- | --- | | | | | | | | | | |

## 09163050 BADGER WASH NEAR MACK, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 15.5 | 12.5 | 17.0 | 13.0 | 28.0 | 19.0 | 28.0 | 21.0 | 21.5 | 17.5 |
| 2 | --- | --- | 16.5 | 11.5 | 16.5 | 12.0 | 23.5 | 19.0 | 28.0 | 22.5 | 21.5 | 17.5 |
| 3 | --- | --- | 16.5 | 13.0 | 17.5 | 13.0 | 26.0 | 19.0 | 27.0 | 22.5 | 22.0 | 17.5 |
| 4 | --- | --- | 16.0 | 13.0 | 18.0 | 13.0 | 23.5 | 18.5 | 26.5 | 21.5 | 22.5 | 18.0 |
| 5 | --- | --- | 16.5 | 13.0 | 22.5 | 14.0 | 23.0 | 18.0 | 27.0 | 21.5 | 22.5 | 18.0 |
| 6 | --- | --- | 18.0 | 14.0 | 22.5 | 18.5 | 23.0 | 18.0 | 29.0 | 20.0 | 23.0 | 19.5 |
| 7 | --- | --- | 16.5 | 14.0 | 21.5 | 18.0 | 21.0 | 18.5 | 28.5 | 17.5 | 23.0 | 19.5 |
| 8 | --- | --- | 17.0 | 13.5 | 21.0 | 18.0 | 24.5 | 18.0 | 29.0 | 18.0 | 23.0 | 20.0 |
| 9 | --- | --- | 15.0 | 12.5 | 21.5 | 18.0 | 25.5 | 18.0 | 29.5 | 18.5 | 21.5 | 20.0 |
| 10 | --- | --- | 14.5 | 11.5 | 21.5 | 19.5 | 25.5 | 20.0 | 29.0 | 19.0 | 20.5 | 18.5 |
| 11 | --- | --- | 13.0 | 10.5 | 21.0 | 19.0 | 25.0 | 20.5 | 28.5 | 19.0 | 21.0 | 17.0 |
| 12 | --- | --- | 11.5 | 10.5 | 21.0 | 18.5 | 23.5 | 21.0 | 29.0 | 16.0 | 21.0 | 18.0 |
| 13 | --- | --- | 14.0 | 10.0 | 21.0 | 18.0 | 24.0 | 20.5 | 29.0 | 21.0 | 22.0 | 18.0 |
| 14 | --- | --- | 14.0 | 11.0 | 20.5 | 18.0 | 25.0 | 20.0 | 27.0 | 19.0 | 20.5 | 17.5 |
| 15 | --- | --- | 14.0 | 10.5 | 20.0 | 17.0 | 24.0 | 19.5 | 26.0 | 21.5 | 20.5 | 16.5 |
| 16 | --- | --- | 16.0 | 11.5 | 20.0 | 17.0 | 25.0 | 20.0 | 25.5 | 21.0 | 21.0 | 17.5 |
| 17 | --- | --- | 15.5 | 12.0 | 19.5 | 17.0 | 26.0 | 20.5 | 25.0 | 20.5 | 21.0 | 16.5 |
| 18 | --- | --- | 17.0 | 11.5 | 19.5 | 17.5 | 26.0 | 20.0 | 24.0 | 20.0 | 21.0 | 17.0 |
| 19 | --- | --- | 17.0 | 12.0 | 19.5 | 17.5 | 25.5 | 21.0 | 23.0 | 19.0 | 21.0 | 17.0 |
| 20 | --- | --- | 18.0 | 13.0 | 19.5 | 18.0 | 26.5 | 21.0 | 22.5 | 18.0 | 21.0 | 17.0 |
| 21 | 15.5 | 13.5 | 19.0 | 14.0 | 19.5 | 19.0 | 27.0 | 21.0 | 22.5 | 18.0 | 20.0 | 16.0 |
| 22 | 14.0 | 13.0 | 18.5 | 15.0 | 19.5 | 17.5 | 24.0 | 21.0 | 23.0 | 18.0 | 20.0 | 15.5 |
| 23 | 15.0 | 13.5 | 18.0 | 14.5 | 21.0 | 17.0 | 24.0 | 19.5 | 24.5 | 19.5 | 20.0 | 14.5 |
| 24 | 15.5 | 12.0 | 16.5 | 13.0 | 22.5 | 16.0 | 24.5 | 20.0 | 22.5 | 19.5 | 18.5 | 14.0 |
| 25 | 17.5 | 11.5 | 14.0 | 12.0 | 21.5 | 16.0 | 26.5 | 21.0 | 23.0 | 19.5 | 18.5 | 14.0 |
| 26 | 17.5 | 11.5 | 14.5 | 11.5 | 22.0 | 17.0 | 25.0 | 20.5 | 23.0 | 19.0 | 18.5 | 14.0 |
| 27 | 17.5 | 11.5 | 15.0 | 11.0 | 22.0 | 17.5 | 25.5 | 20.5 | 23.5 | 19.5 | 19.0 | 14.0 |
| 28 | 14.0 | 12.5 | 16.0 | 11.5 | 22.5 | 17.0 | 25.5 | 21.0 | 23.5 | 19.5 | 19.0 | 14.5 |
| 29 | 16.5 | 13.5 | 17.0 | 12.5 | 23.5 | 18.0 | 25.5 | 21.5 | 22.5 | 20.0 | 19.5 | 14.5 |
| 30 | 17.0 | 12.0 | 17.5 | 13.0 | 24.0 | 19.0 | 26.5 | 21.0 | --- | --- | 19.5 | 14.5 |
| 31 | --- | --- | 17.0 | 13.0 | --- | --- | 28.0 | 22.0 | 21.5 | 17.5 | --- | --- |

## 09163310 EAST SALT CREEK NEAR MACK, CO

LOCATION.--Lat 39°17'50", long 108°51'58", in SE¼SE¼ sec.3, T.9 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 100 ft (30 m) upstream from bridge, 200 ft (61 m) downstream from Dry Canyon Wash, and 5.0 mi (8.0 km) north of Mack.

DRAINAGE AREA.--197 mi² (510 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,650 ft (1,417 m), from topographic map.

REMARKS.--Records fair except those for periods Mar. 3 to Apr. 20, Apr. 23 to May 17, when the stage-discharge relationship was indefinite, which are poor. Some regulation by several small detention reservoirs and stock ponds on tributaries above station. A few small diversions for irrigation of hay meadows above station.

AVERAGE DISCHARGE.--7 years, 6.20 ft³/s (0.176 m³/s), 4,490 acre-ft/yr (5.54 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,630 ft³/s (74.5 m³/s) July 18, 1974, gage height, 9.95 ft (3.033 m), from floodmarks, from rating curve extended above 240 ft³/s (6.8 m³/s), on basis of slope-area measurement of peak flow; minimum daily,0.06 ft³/s (0.002 m³/s) Mar. 16, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 19, 1972, reached a stage of 8.9 ft (2.71 m), from floodmarks (discharge, 2,160 ft³/s or 61.2 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; maximum gage height, 6.30 ft (1.920 m) May 11 from highwater mark (backwater from beaver dam); minimum daily discharge, 0.09 ft³/s (0.003 m³/s) Jan. 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .65 | .44 | .38 | .34 | .11 | 4.7 | 6.6 | 60 | 67 | 8.4 | .33 | .30 |
| 2 | .68 | .44 | .37 | .32 | .10 | 5.2 | 5.4 | 62 | 66 | 8.3 | .23 | .36 |
| 3 | .70 | .44 | .35 | .31 | .10 | 5.9 | 4.0 | 60 | 52 | 8.0 | .26 | .38 |
| 4 | .83 | .51 | .33 | .35 | .12 | 7.1 | 6.0 | 56 | 45 | 7.4 | .25 | .36 |
| 5 | .92 | .46 | .32 | .31 | .12 | 9.5 | 7.2 | 56 | 40 | 6.9 | .33 | .34 |
| 6 | .85 | .49 | .37 | .32 | .14 | 9.0 | 8.6 | 56 | 34 | 6.4 | .35 | .42 |
| 7 | .81 | .49 | .35 | .21 | .12 | 17 | 9.8 | 55 | 32 | 7.2 | .36 | .37 |
| 8 | .82 | .69 | .35 | .23 | .13 | 8.4 | 8.0 | 59 | 30 | 6.0 | .35 | .34 |
| 9 | .81 | .73 | .35 | .21 | .14 | 5.8 | 7.0 | 65 | 28 | 5.4 | .38 | .35 |
| 10 | .82 | .63 | .26 | .21 | .14 | 4.3 | 8.0 | 110 | 26 | 5.0 | .34 | 26 |
| 11 | .86 | .75 | .22 | .19 | .13 | 7.3 | 9.0 | 188 | 22 | 4.4 | .34 | 8.9 |
| 12 | .79 | .74 | .22 | .22 | .15 | 8.6 | 9.0 | 260 | 21 | 3.6 | .35 | 3.4 |
| 13 | .81 | .79 | .22 | .22 | .16 | 9.4 | 9.0 | 220 | 20 | 3.9 | .34 | 1.2 |
| 14 | .85 | .64 | .22 | 1.1 | .19 | 6.0 | 9.0 | 210 | 20 | 4.2 | .29 | .48 |
| 15 | .90 | .66 | .22 | .33 | 1.4 | 14 | 10 | 200 | 19 | 3.8 | .26 | .25 |
| 16 | .78 | .70 | .22 | .19 | 2.9 | 16 | 12 | 188 | 17 | 3.7 | .25 | .17 |
| 17 | .72 | .73 | .22 | .21 | 1.4 | 13 | 13 | 180 | 18 | 3.7 | .26 | .21 |
| 18 | .82 | .70 | .19 | .25 | 3.1 | 10 | 14 | 175 | 17 | 2.8 | .27 | .21 |
| 19 | .81 | .73 | .21 | .19 | 9.1 | 8.0 | 30 | 168 | 16 | 2.4 | .29 | .22 |
| 20 | .83 | .64 | .21 | .19 | 42 | 7.0 | 54 | 160 | 16 | 1.5 | .39 | .18 |
| 21 | 1.1 | .60 | .21 | .18 | 15 | 6.6 | 62 | 152 | 17 | 1.2 | .39 | .20 |
| 22 | 1.1 | .60 | .21 | .14 | 9.8 | 7.0 | 62 | 147 | 17 | 1.0 | .34 | .22 |
| 23 | 1.2 | .50 | .21 | .15 | 6.4 | 9.8 | 66 | 138 | 16 | .76 | 5.1 | .25 |
| 24 | 1.1 | .50 | .21 | .16 | 2.9 | 7.8 | 70 | 130 | 15 | .66 | 5.4 | .26 |
| 25 | .83 | .51 | .24 | .13 | 2.2 | 10 | 69 | 121 | 14 | 2.2 | 3.4 | .25 |
| 26 | .52 | .47 | .28 | .13 | 2.4 | 13 | 71 | 114 | 13 | 2.2 | 1.8 | .37 |
| 27 | .47 | .51 | .30 | .12 | 4.5 | 10 | 62 | 105 | 10 | 1.9 | .70 | .39 |
| 28 | .51 | .35 | .32 | .10 | 7.0 | 8.5 | 60 | 99 | 9.6 | 1.5 | .18 | .35 |
| 29 | .47 | .40 | .35 | .11 | 8.3 | 7.6 | 57 | 89 | 9.1 | 1.4 | .20 | .36 |
| 30 | .49 | .40 | .36 | .09 | --- | 7.2 | 58 | 82 | 9.3 | .92 | .28 | .34 |
| 31 | .47 | --- | .33 | .09 | --- | 7.2 | --- | 74 | --- | .55 | .27 | --- |
| TOTAL | 24.32 | 17.24 | 8.60 | 7.30 | 120.25 | 270.9 | 876.6 | 3839 | 736.0 | 117.29 | 24.28 | 47.43 |
| MEAN | .78 | .57 | .28 | .24 | 4.15 | 8.74 | 29.2 | 124 | 24.5 | 3.78 | .78 | 1.58 |
| MAX | 1.2 | .79 | .38 | 1.1 | 42 | 17 | 71 | 260 | 67 | 8.4 | 5.4 | 26 |
| MIN | .47 | .35 | .19 | .09 | .10 | 4.3 | 4.0 | 55 | 9.1 | .55 | .18 | .17 |
| AC-FT | 48 | 34 | 17 | 14 | 239 | 537 | 1740 | 7610 | 1460 | 233 | 48 | 94 |

CAL YR 1979 TOTAL 4480.74 MEAN 12.3 MAX 180 MIN .09 AC-FT 8890
WTR YR 1980 TOTAL 6089.21 MEAN 16.6 MAX 260 MIN .09 AC-FT 12080

## 09163310 EAST SALT CREEK NEAR MACK, CO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1973 to current year.
WATER TEMPERATURES: July 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since July 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 13,500 micromhos Apr. 26, 1974; minimum, 488 micromhos May 13, 1978.
WATER TEMPERATURES: Maximum, 33.5°C June 28, 1979; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 10,300 micromhos Feb. 26; minimum, 565 micromhos May 17.
WATER TEMPERATURES: Maximum, 37.0°C July 9; minimum, 1°C several days during December and January.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAMFLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | OXYGEN, DISSOLVED (MG/L) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| NOV 06... | 1230 | .39 | 6150 | 8.2 | 11.0 | 8.7 | 2300 | 1900 |
| JAN 29... | 1010 | .30 | 7000 | 7.7 | 4.0 | 12.0 | 2100 | 1700 |
| APR 22... | 0900 | 55 | 1470 | 8.0 | 12.0 | 8.8 | 450 | 230 |
| JUL 16... | 0830 | 4.2 | 4100 | 8.2 | 16.5 | 7.6 | 1200 | 820 |

| DATE | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| NOV 06... | 420 | 300 | 830 | 7.6 | 7.9 | 430 | 3200 | 260 | .4 |
| JAN 29... | 310 | 320 | 810 | 7.7 | 5.3 | 430 | 2900 | 290 | .4 |
| APR 22... | 78 | 62 | 160 | 3.3 | 3.9 | 220 | 540 | 11 | .4 |
| JUL 16... | 150 | 200 | 640 | 8.0 | 4.5 | 380 | 2000 | 100 | .6 |

| DATE | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) | SOLIDS, DISSOLVED (TONS PER AC-FT) | SOLIDS, DISSOLVED (TONS PER DAY) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | PHOSPHORUS, DISSOLVED (MG/L AS P) | IRON, DISSOLVED (UG/L AS FE) | MANGANESE, DISSOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| NOV 06... | 18 | 5300 | 7.21 | 5.58 | .88 | .130 | 80 | 220 |
| JAN 29... | 16 | 4910 | 6.68 | 3.98 | .94 | .010 | 70 | 240 |
| APR 22... | 11 | 1000 | 1.36 | 150 | .59 | .100 | 130 | 10 |
| JUL 16... | 12 | 3340 | 4.54 | 38.4 | .26 | .010 | 70 | 90 |

## 09163310 EAST SALT CREEK NEAR MACK, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5240 | 5980 | 6210 | 6920 | 6990 | 5430 | 8880 | 1170 | 1680 | 2440 | 5530 | 8140 |
| 2 | 5290 | 5950 | 6190 | 6920 | 7040 | 5480 | 9030 | 1060 | 1640 | 2480 | 5860 | 8180 |
| 3 | 5250 | 6030 | 6170 | 6930 | 7030 | 5890 | 8840 | 1020 | 1700 | 2510 | 6010 | 7980 |
| 4 | 5240 | 6080 | 6180 | 6940 | 6950 | 6160 | 8690 | 1070 | 1780 | 2570 | 6050 | 8030 |
| 5 | 5210 | 6080 | 6200 | 6920 | 6860 | 6380 | 8460 | 1130 | 1820 | 2680 | 6100 | 8180 |
| 6 | 5220 | 5760 | 6240 | 6910 | 6770 | 6030 | 8220 | 1050 | 1890 | 2780 | 6050 | 8050 |
| 7 | 5190 | 5360 | 6270 | 6880 | 6680 | 6340 | 8000 | 1060 | 1910 | 2870 | 6050 | 8270 |
| 8 | 5220 | 5410 | 6230 | 6900 | 6610 | 6930 | 7790 | 1170 | 1970 | 2940 | 5970 | 8460 |
| 9 | 5180 | 5550 | 6290 | 6940 | 6590 | 7200 | 7580 | 1160 | 2020 | 3080 | 5940 | 8460 |
| 10 | 5200 | 5510 | 5190 | 6920 | 6650 | 6670 | 7390 | 1110 | 2040 | 3260 | 5940 | 8210 |
| 11 | 5200 | 5530 | 4390 | 6870 | 6610 | 7120 | 7210 | 1330 | 1980 | 3380 | 5940 | 5760 |
| 12 | 5240 | 5550 | 4940 | 6950 | 6570 | 8150 | 7030 | 1420 | 1920 | 3440 | 6070 | 5250 |
| 13 | 5100 | 5620 | 6010 | 7000 | 6370 | 7490 | 6840 | 1450 | 1860 | 3500 | 6200 | 5870 |
| 14 | 5110 | 5600 | 6170 | 6350 | 6110 | 6790 | 6670 | 1490 | 1870 | 3550 | 6220 | 6660 |
| 15 | 5120 | 5610 | 6280 | 5080 | 5580 | 7830 | 6500 | 1470 | 1940 | 3740 | 6410 | 8080 |
| 16 | 5230 | 5670 | 6380 | 4860 | 3130 | 7650 | 6330 | 1510 | 2080 | 3870 | 6180 | 8210 |
| 17 | 5330 | 5740 | 6450 | 5090 | 3320 | 7610 | 6160 | 1290 | 2030 | 3960 | 5230 | 7990 |
| 18 | 5360 | 5770 | 6580 | 5340 | 3430 | 7730 | 5970 | 1360 | 2160 | 3960 | 5270 | 8140 |
| 19 | 5530 | 5830 | 6680 | 5560 | 2990 | 7860 | 5790 | 1310 | 2240 | 4170 | 4700 | 8040 |
| 20 | 5360 | 5890 | 6750 | 5740 | 2940 | 8010 | 5620 | 1280 | 2420 | 4590 | 4320 | 7980 |
| 21 | 5460 | 5920 | 6720 | 5990 | 4020 | 8110 | 5940 | 1220 | 2550 | 4910 | 4840 | 8080 |
| 22 | 5690 | 6070 | 6650 | 6140 | 5650 | 8210 | 2700 | 1160 | 2590 | 5040 | 5470 | 7980 |
| 23 | 5650 | 6030 | 6640 | 6280 | 6300 | 8300 | 1420 | 1120 | 2380 | 5250 | 6590 | 7900 |
| 24 | 5390 | 6000 | 6790 | 6380 | 6620 | 8400 | 1860 | 1100 | 1850 | 5390 | 6960 | 7820 |
| 25 | 5650 | 6100 | 6900 | 6520 | 7190 | 8550 | 1470 | 1110 | 2220 | 5170 | 6450 | 7730 |
| 26 | 5690 | 6080 | 6960 | 6630 | 6870 | 8670 | 1310 | 1320 | 2790 | 4420 | 5530 | 7700 |
| 27 | 5720 | 6080 | 6910 | 6720 | 6190 | 8590 | 1180 | 2090 | 2800 | 5030 | 5360 | 7650 |
| 28 | 5800 | 6210 | 6900 | 6800 | 5430 | 8620 | 1130 | 2300 | 3150 | 5200 | 6380 | 7590 |
| 29 | 5760 | 6220 | 6920 | 6970 | 5210 | 8670 | 1100 | 1520 | 2590 | 5320 | 6880 | 7470 |
| 30 | 5880 | 6220 | 6930 | 6940 | --- | 8720 | 1130 | 1630 | 2410 | 5600 | 7480 | 7460 |
| 31 | 5910 | --- | 6920 | 6870 | --- | 8800 | --- | 1570 | --- | 5620 | 7740 | --- |

### 09163310 EAST SALT CREEK NEAR MACK, CO--Continued

### TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 23.5 | 16.5 | 14.5 | 9.0 | 10.0 | 6.5 | 5.5 | 2.5 | 7.5 | 1.0 | 13.0 | 2.5 |
| 2 | 23.5 | 17.0 | 15.0 | 9.5 | 10.5 | 7.0 | 5.5 | 1.5 | 7.5 | 1.5 | 8.0 | 2.0 |
| 3 | 23.0 | 17.5 | 15.0 | 10.0 | 11.5 | 7.0 | 4.5 | 2.5 | 8.5 | 2.5 | 9.0 | 4.0 |
| 4 | 22.0 | 16.0 | 16.0 | 10.0 | 11.0 | 7.0 | 5.5 | 2.5 | 9.5 | 3.0 | 9.0 | 4.5 |
| 5 | 22.0 | 15.5 | 16.5 | 10.5 | 11.5 | 7.5 | 5.0 | 3.0 | 9.5 | 2.5 | 9.0 | 2.5 |
| 6 | 22.0 | 16.0 | 16.0 | 10.5 | 12.0 | 8.0 | 5.5 | 2.0 | 8.5 | 3.0 | 6.5 | 5.0 |
| 7 | 22.5 | 16.0 | 14.0 | 12.0 | 11.0 | 8.0 | 5.5 | 1.5 | 7.5 | 3.0 | 5.5 | 3.0 |
| 8 | 22.0 | 16.0 | 16.5 | 12.0 | 12.0 | 8.0 | 6.0 | 2.0 | 8.5 | 1.5 | 12.5 | 3.0 |
| 9 | 22.0 | 16.0 | 17.0 | 13.0 | 12.0 | 7.5 | 5.5 | 2.0 | 7.5 | 1.0 | 9.5 | 2.0 |
| 10 | 22.0 | 15.5 | 16.5 | 11.5 | 8.5 | 3.5 | 5.5 | 2.0 | 8.0 | 1.0 | 13.5 | 1.0 |
| 11 | 21.0 | 16.0 | 15.5 | 11.0 | 6.0 | 2.0 | 5.5 | 1.0 | 8.5 | 1.5 | 8.0 | 2.5 |
| 12 | 21.5 | 16.5 | 15.0 | 9.5 | 5.0 | 1.0 | 4.0 | 2.0 | 9.0 | 1.5 | 12.0 | 3.0 |
| 13 | 21.0 | 16.0 | 15.0 | 9.0 | 5.0 | 1.0 | 6.5 | 3.5 | 10.0 | 2.5 | 14.0 | 1.0 |
| 14 | 20.0 | 16.5 | 14.5 | 9.0 | 4.5 | 1.0 | 5.5 | 3.0 | 7.5 | 5.0 | 10.5 | 6.5 |
| 15 | 21.0 | 15.5 | 14.0 | 8.5 | 4.5 | 1.0 | 8.5 | 3.0 | 10.0 | 4.5 | 9.0 | 8.5 |
| 16 | 21.0 | 16.5 | 14.0 | 8.5 | 5.0 | 1.0 | 7.0 | 5.0 | 9.5 | 2.5 | 9.0 | 8.0 |
| 17 | 20.0 | 15.5 | 13.0 | 8.5 | 5.0 | 1.0 | 7.0 | 5.5 | 8.0 | 5.0 | 8.5 | 7.5 |
| 18 | 21.0 | 16.5 | 15.0 | 10.5 | 5.5 | 1.0 | 6.0 | 4.5 | 7.5 | 5.5 | 7.5 | 7.0 |
| 19 | 20.5 | 18.0 | 12.0 | 9.5 | 5.0 | 1.0 | 6.0 | 4.0 | 9.5 | 4.5 | 7.0 | 7.0 |
| 20 | 20.5 | 16.5 | 13.5 | 10.0 | 5.0 | 1.0 | 7.5 | 3.0 | 6.5 | 3.5 | 7.5 | 7.0 |
| 21 | 18.5 | 13.5 | 13.0 | 8.5 | 5.5 | 1.0 | 8.5 | 3.0 | 5.0 | 2.5 | 8.0 | 7.5 |
| 22 | 17.5 | 12.0 | 12.0 | 7.5 | 4.5 | 2.5 | 7.0 | 2.0 | 9.0 | 3.5 | 8.0 | 7.5 |
| 23 | 18.5 | 12.5 | 10.0 | 8.0 | 5.0 | 1.5 | 6.5 | 1.5 | 9.0 | 3.0 | 8.0 | 8.0 |
| 24 | 18.5 | 12.0 | 10.5 | 7.5 | 5.5 | 1.5 | 7.0 | 1.5 | 11.5 | 1.5 | 8.0 | 8.0 |
| 25 | 19.5 | 13.0 | 12.0 | 7.5 | 5.5 | 1.0 | 7.5 | 2.0 | 10.0 | 1.0 | 8.0 | 8.0 |
| 26 | 19.5 | 14.0 | 11.0 | 8.5 | 4.5 | 1.5 | 7.0 | 2.0 | 11.0 | 1.0 | 8.0 | 8.0 |
| 27 | 19.5 | 14.0 | 11.0 | 7.0 | 5.0 | 3.0 | 7.5 | 3.0 | 12.0 | 1.5 | 8.0 | 7.5 |
| 28 | 18.5 | 13.0 | 10.5 | 6.5 | 5.5 | 2.0 | 4.5 | 2.0 | 11.5 | 2.0 | 8.0 | 7.5 |
| 29 | 17.0 | 13.5 | 10.0 | 6.5 | 5.0 | 2.5 | 6.0 | 2.5 | 9.5 | 4.5 | 8.0 | 7.5 |
| 30 | 16.0 | 11.5 | 10.0 | 6.5 | 5.0 | 2.5 | 7.5 | 1.0 | --- | --- | 8.0 | 7.5 |
| 31 | 15.5 | 10.0 | --- | --- | 5.0 | 2.5 | 6.5 | 1.0 | --- | --- | 8.0 | 7.5 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 8.0 | 7.5 | 11.0 | 9.5 | 16.0 | 6.5 | 35.5 | 24.5 | 30.5 | 19.5 | 28.0 | 14.0 |
| 2 | 7.5 | 7.5 | 14.5 | 9.0 | 17.0 | 2.0 | 34.0 | 24.5 | 31.0 | 19.0 | 27.0 | 14.0 |
| 3 | 8.0 | 6.0 | 12.5 | 9.5 | 20.5 | 7.0 | 35.0 | 23.0 | 28.0 | 19.0 | 28.0 | 14.5 |
| 4 | 9.5 | 7.0 | 14.0 | 9.5 | 20.5 | 11.5 | 34.0 | 21.5 | 28.5 | 17.5 | 28.5 | 15.0 |
| 5 | 9.0 | 8.5 | 13.5 | 9.5 | 21.0 | 12.0 | 34.5 | 20.5 | 29.0 | 18.5 | 27.5 | 15.0 |
| 6 | 9.0 | 8.5 | 14.0 | 10.0 | 21.0 | 12.0 | 35.0 | 21.0 | 29.0 | 18.0 | 27.5 | 17.5 |
| 7 | 9.0 | 8.5 | 12.0 | 9.5 | 22.5 | 12.5 | 30.0 | 23.0 | 30.0 | 18.0 | 25.0 | 17.0 |
| 8 | 9.0 | 8.5 | 13.5 | 10.0 | 22.0 | 12.5 | 35.0 | 23.0 | 30.0 | 18.5 | 25.0 | 17.5 |
| 9 | 8.5 | 8.0 | 11.5 | 9.5 | 24.0 | 13.5 | 37.0 | 23.0 | 30.0 | 19.0 | 21.5 | 18.0 |
| 10 | 8.5 | 8.5 | 10.5 | 9.0 | 25.5 | 14.5 | 35.0 | 24.0 | 30.5 | 19.0 | 20.0 | 17.5 |
| 11 | 8.5 | 8.5 | 9.5 | 8.5 | 24.0 | 14.5 | 35.5 | 24.0 | 30.0 | 17.5 | 24.0 | 14.0 |
| 12 | 8.5 | 8.5 | 8.0 | 6.5 | 23.5 | 14.0 | 31.5 | 24.5 | 29.5 | 17.5 | 25.0 | 14.5 |
| 13 | 8.5 | 8.5 | 11.0 | 6.5 | 24.5 | 13.0 | 34.0 | 24.0 | 30.5 | 19.0 | 27.0 | 14.5 |
| 14 | 8.5 | 8.5 | 10.5 | 8.0 | 23.5 | 13.0 | 36.0 | 23.0 | 29.5 | 19.5 | 24.5 | 13.5 |
| 15 | 8.5 | 8.5 | 11.0 | 8.5 | 24.5 | 13.0 | 36.5 | 21.5 | 27.5 | 20.5 | 25.5 | 13.0 |
| 16 | 8.5 | 8.0 | 13.5 | 9.5 | 25.5 | 14.0 | 33.0 | 19.5 | 27.5 | 17.5 | 27.5 | 14.5 |
| 17 | 9.0 | 8.5 | 20.5 | 9.0 | 26.0 | 15.0 | 32.5 | 17.5 | 28.0 | 17.0 | 27.0 | 12.0 |
| 18 | 9.0 | 8.5 | 16.5 | 8.0 | 27.0 | 15.0 | 32.0 | 18.0 | 26.5 | 17.0 | 27.0 | 12.0 |
| 19 | 9.0 | 8.5 | 15.0 | 9.5 | 26.0 | 16.0 | 31.5 | 18.5 | 25.0 | 16.5 | 25.0 | 13.5 |
| 20 | 9.5 | 9.0 | 15.5 | 10.5 | 27.5 | 16.0 | 32.5 | 18.0 | 26.0 | 14.5 | 25.0 | 13.0 |
| 21 | 10.5 | 9.5 | 16.0 | 11.0 | 27.5 | 16.5 | 32.5 | 18.0 | 27.0 | 14.5 | 23.5 | 11.0 |
| 22 | 16.0 | 10.0 | 15.0 | 11.5 | 27.5 | 16.0 | 31.0 | 18.0 | 26.5 | 15.5 | 24.5 | 11.0 |
| 23 | 12.0 | 9.5 | 15.0 | 11.0 | 31.0 | 15.5 | 29.5 | 19.5 | 26.0 | 18.0 | 24.0 | 9.5 |
| 24 | 12.5 | 8.0 | 12.0 | 9.0 | 32.0 | 19.5 | 31.0 | 18.5 | 24.5 | 18.0 | 24.0 | 9.5 |
| 25 | 15.5 | 8.0 | 12.5 | 7.0 | 32.5 | 19.5 | 30.0 | 18.5 | 26.5 | 18.0 | 24.5 | 10.0 |
| 26 | 15.5 | 9.0 | 12.0 | 7.0 | 32.0 | 21.0 | 31.5 | 18.5 | 28.5 | 16.5 | 24.5 | 10.0 |
| 27 | 15.0 | 9.0 | 12.5 | 9.0 | 34.0 | 22.0 | 31.5 | 17.5 | 28.5 | 16.0 | 25.0 | 11.0 |
| 28 | 16.0 | 10.0 | 15.5 | 9.5 | 34.5 | 21.0 | 32.0 | 17.5 | 28.5 | 15.5 | 25.0 | 11.0 |
| 29 | 12.5 | 12.0 | 15.5 | 8.0 | 35.5 | 22.0 | 28.0 | 18.0 | 24.0 | 15.5 | 25.5 | 11.0 |
| 30 | 12.5 | 10.0 | 16.5 | 8.0 | 36.0 | 24.5 | 31.0 | 19.0 | 25.0 | 14.0 | 24.5 | 10.5 |
| 31 | --- | --- | 16.5 | 8.0 | --- | --- | 30.5 | 19.5 | 25.0 | 14.0 | --- | --- |

## 09163340 MACK WASH NEAR MACK, CO

LOCATION.--Lat 39°15'57", long 108°50'32", in NE¼NW¼ sec.8, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank just downstream from culvert under R Road, 0.2 mi (0.3 km) downstream from Highline Lake dam, and 3.1 mi (5.0 km) north of Mack.

DRAINAGE AREA.--15.9 mi² (41.2 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,615 ft (1,407 m), from topographic map.

REMARKS.--Records good. Flow regulated at times by Highline Lake, capacity, 3,400 acre-ft (4.19 hm³). Mack Mesa Lake, capacity, 131 acre-ft (162,000 m³) is on a tributary to Highline Lake. Natural flow of stream affected by several small detention reservoirs and stock ponds on tributaries upstream. Flows include water wasted into Highline Lake from Government Highline Canal just below Lateral No. 48.

AVERAGE DISCHARGE.--7 years, 25.4 ft³/s (0.719 m³/s), 18,400 acre-ft/yr (22.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 204 ft³/s (5.78 m³/s) Apr. 20, 1975, gage height, 2.56 ft (0.780 m); minimum daily, 1.3 ft³/s (0.037 m³/s) June 20 to July 1, 1977, Apr. 12-17, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 198 ft³/s (5.61 m³/s) at 0500 Apr. 25, gage height, 2.13 ft (0.649 m); minimum daily, 1.3 ft³/s (0.037 m³/s) Apr. 12-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 76 | 3.0 | 1.9 | 1.7 | 1.7 | 1.7 | 2.1 | 60 | 35 | 3.7 | 2.8 | 58 |
| 2 | 76 | 2.8 | 1.9 | 1.6 | 1.5 | 1.7 | 2.1 | 51 | 35 | 3.7 | 2.7 | 58 |
| 3 | 74 | 2.7 | 1.9 | 1.6 | 1.5 | 1.7 | 2.2 | 29 | 36 | 3.7 | 2.6 | 34 |
| 4 | 70 | 2.6 | 1.9 | 1.6 | 1.5 | 1.7 | 2.3 | 20 | 35 | 3.7 | 2.6 | 13 |
| 5 | 68 | 2.6 | 1.9 | 1.6 | 1.5 | 1.7 | 2.4 | 23 | 30 | 3.7 | 2.4 | 7.7 |
| 6 | 64 | 2.5 | 1.9 | 1.6 | 1.5 | 1.7 | 2.7 | 22 | 26 | 13 | 2.1 | 6.4 |
| 7 | 62 | 2.5 | 1.9 | 1.6 | 1.5 | 1.8 | 3.1 | 10 | 21 | 33 | 2.1 | 9.6 |
| 8 | 55 | 2.5 | 1.9 | 1.6 | 1.5 | 1.9 | 2.2 | 22 | 14 | 32 | 2.2 | 19 |
| 9 | 47 | 2.5 | 1.9 | 1.6 | 1.5 | 1.9 | 1.4 | 30 | 7.4 | 37 | 2.4 | 27 |
| 10 | 45 | 2.5 | 1.9 | 1.6 | 1.4 | 1.8 | 1.4 | 40 | 5.1 | 29 | 2.4 | 47 |
| 11 | 43 | 2.5 | 1.9 | 1.6 | 1.4 | 1.7 | 1.4 | 60 | 4.1 | 16 | 2.2 | 71 |
| 12 | 45 | 2.4 | 1.8 | 1.6 | 1.4 | 1.7 | 1.3 | 75 | 3.7 | 13 | 2.2 | 106 |
| 13 | 48 | 2.4 | 1.7 | 1.6 | 1.4 | 1.7 | 1.3 | 98 | 3.6 | 20 | 2.2 | 116 |
| 14 | 54 | 2.4 | 1.7 | 1.6 | 1.5 | 1.7 | 1.3 | 113 | 3.4 | 33 | 2.3 | 135 |
| 15 | 58 | 2.4 | 1.7 | 1.6 | 1.5 | 1.8 | 1.3 | 133 | 3.5 | 40 | 2.1 | 137 |
| 16 | 61 | 2.4 | 1.8 | 1.6 | 1.5 | 1.9 | 1.3 | 169 | 3.5 | 37 | 2.1 | 126 |
| 17 | 66 | 2.4 | 1.7 | 1.6 | 1.6 | 1.8 | 1.3 | 173 | 3.5 | 29 | 2.2 | 108 |
| 18 | 72 | 2.2 | 1.7 | 1.6 | 1.6 | 1.9 | 14 | 140 | 3.5 | 21 | 2.2 | 93 |
| 19 | 74 | 2.2 | 1.7 | 1.6 | 1.7 | 2.0 | 130 | 126 | 3.6 | 11 | 2.3 | 83 |
| 20 | 78 | 2.2 | 1.7 | 1.6 | 1.7 | 2.0 | 167 | 132 | 3.7 | 5.9 | 2.1 | 73 |
| 21 | 88 | 2.2 | 1.7 | 1.6 | 1.7 | 2.0 | 162 | 123 | 3.7 | 4.6 | 2.5 | 52 |
| 22 | 101 | 2.1 | 1.7 | 1.6 | 1.7 | 2.0 | 148 | 107 | 3.7 | 3.8 | 2.4 | 41 |
| 23 | 149 | 2.1 | 1.7 | 1.6 | 1.7 | 2.0 | 140 | 77 | 3.7 | 3.5 | 2.3 | 35 |
| 24 | 174 | 2.1 | 1.7 | 1.6 | 1.7 | 2.0 | 179 | 60 | 3.7 | 3.2 | 2.2 | 37 |
| 25 | 179 | 2.1 | 1.7 | 1.6 | 1.7 | 2.0 | 183 | 47 | 3.8 | 3.1 | 2.2 | 40 |
| 26 | 150 | 2.0 | 1.7 | 1.6 | 1.7 | 2.0 | 118 | 48 | 3.8 | 2.9 | 5.0 | 36 |
| 27 | 72 | 2.0 | 1.7 | 1.6 | 1.8 | 2.1 | 114 | 39 | 3.8 | 2.9 | 28 | 34 |
| 28 | 14 | 2.0 | 1.7 | 1.6 | 1.7 | 2.2 | 94 | 30 | 3.8 | 2.8 | 45 | 30 |
| 29 | 6.5 | 2.0 | 1.7 | 1.6 | 1.7 | 2.2 | 62 | 32 | 3.8 | 2.8 | 34 | 29 |
| 30 | 4.4 | 2.0 | 1.7 | 1.6 | --- | 2.2 | 63 | 42 | 3.8 | 2.8 | 48 | 29 |
| 31 | 3.4 | --- | 1.7 | 1.6 | --- | 2.1 | --- | 41 | --- | 2.9 | 52 | --- |
| TOTAL | 2180.3 | 70.3 | 55.1 | 49.7 | 45.8 | 58.6 | 1605.1 | 2172 | 318.2 | 423.7 | 269.8 | 1690.7 |
| MEAN | 70.3 | 2.34 | 1.78 | 1.60 | 1.58 | 1.89 | 53.5 | 70.1 | 10.6 | 13.7 | 8.70 | 56.4 |
| MAX | 179 | 3.0 | 1.9 | 1.7 | 1.8 | 2.2 | 183 | 173 | 36 | 40 | 52 | 137 |
| MIN | 3.4 | 2.0 | 1.7 | 1.6 | 1.4 | 1.7 | 1.3 | 10 | 3.4 | 2.8 | 2.1 | 6.4 |
| AC-FT | 4320 | 139 | 109 | 99 | 91 | 116 | 3180 | 4310 | 631 | 840 | 535 | 3350 |

CAL YR 1979 TOTAL 9516.6 MEAN 26.1 MAX 187 MIN 1.5 AC-FT 18880
WTR YR 1980 TOTAL 8939.3 MEAN 24.4 MAX 183 MIN 1.3 AC-FT 17730

## 09163340 MACK WASH NEAR MACK, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to current year.
WATER TEMPERATURES: July 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since July 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,990 micromhos Nov. 6, 1979; minimum, 709 micromhos June 6, 1979.
WATER TEMPERATURES: Maximum, 26.0°C July 22, 24, 1976; minimum, 1.5°C Feb. 17-19, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 5,990 micromhos Nov. 6; minimum, 897 micromhos July 17.
WATER TEMPERATURES: Maximum, 25.0°C July 17, 18; minimum, 6.5°C Nov. 29, 30, Jan. 11, 22, 31, Feb. 8, 9, 10.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| NOV<br>06... | 1040 | 2.3 | 4250 | 7.5 | 11.0 | 8.8 | 1900 | 1700 |
| JAN<br>29... | 1110 | 1.8 | 3700 | 7.4 | 9.0 | 8.8 | 1900 | 1500 |
| APR<br>22... | 1115 | 147 | 1120 | 7.9 | 15.0 | 9.3 | 350 | 220 |
| JUL<br>16... | 0620 | 38 | 990 | 7.4 | 22.0 | 7.1 | 360 | 230 |

| DATE | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| NOV<br>06... | 510 | 160 | 230 | 2.3 | 8.4 | 240 | 1900 | 160 | .3 |
| JAN<br>29... | 520 | 150 | 220 | 2.2 | 6.5 | 380 | 1900 | 170 | .3 |
| APR<br>22... | 92 | 29 | 120 | 2.8 | 4.2 | 130 | 250 | 150 | .3 |
| JUL<br>16... | 95 | 29 | 73 | 1.7 | 3.0 | 130 | 300 | 70 | .4 |

| DATE | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| NOV<br>06... | 13 | 3140 | 4.27 | 20.0 | 4.2 | .010 | 40 | 60 |
| JAN<br>29... | 12 | 3220 | 4.38 | 15.7 | 2.1 | .000 | 50 | 60 |
| APR<br>22... | 8.0 | 733 | 1.00 | 291 | .29 | .070 | 80 | 10 |
| JUL<br>16... | 8.4 | 659 | .90 | 67.6 | .37 | .010 | 10 | 8 |

## 09163340 MACK WASH NEAR MACK, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1280 | 3430 | 3620 | 3650 | 1830 | 3170 | 3980 | 970 | 870 | 3710 | 2930 | 1420 |
| 2 | 1280 | 3880 | 3640 | 3750 | 1940 | 3390 | 4000 | 998 | 880 | 3220 | 3090 | 1140 |
| 3 | 1290 | 4330 | 3600 | 3760 | 2000 | 3270 | 4040 | 1030 | 870 | 2860 | 3540 | 1250 |
| 4 | 1290 | 4790 | 3570 | 3770 | 2220 | 3250 | 3920 | 1050 | 927 | 3700 | 3580 | 1260 |
| 5 | 1290 | 5240 | 3550 | 3760 | 2370 | 3210 | 3470 | 1080 | 983 | 3340 | 3080 | 1320 |
| 6 | 1290 | 4770 | 3540 | 3780 | 2450 | 2970 | 3650 | 1110 | 1040 | 2260 | 1880 | 1410 |
| 7 | 1280 | 3920 | 3560 | 3900 | 2410 | 3360 | 4460 | 1140 | 1310 | 1830 | 1390 | 1260 |
| 8 | 1310 | 3830 | 3550 | 4140 | 2490 | 3700 | 2880 | 1130 | 1600 | 1600 | 1630 | 1190 |
| 9 | 1320 | 3860 | 3490 | 4350 | 2690 | 2880 | 1800 | 1110 | 2030 | 1570 | 1840 | 1210 |
| 10 | 1300 | 3830 | 3650 | 4470 | 2800 | 3250 | 1870 | 1100 | 2650 | 1690 | 2720 | 1310 |
| 11 | 1290 | 3800 | 3830 | 4460 | 2950 | 3830 | 1790 | 1080 | 3230 | 1780 | 3520 | 1300 |
| 12 | 1270 | 3810 | 4010 | 4420 | 2830 | 3890 | 2570 | 1070 | 3680 | 1800 | 2950 | 1130 |
| 13 | 1270 | 3810 | 4070 | 4410 | 2900 | 3750 | 3210 | 998 | 3920 | 1610 | 2700 | 1080 |
| 14 | 1250 | 3920 | 4100 | 4270 | 2970 | 3620 | 1950 | 927 | 4030 | 1160 | 2900 | 1090 |
| 15 | 1230 | 3960 | 4120 | 4320 | 3040 | 3860 | 1480 | 855 | 4080 | 1090 | 3090 | 1150 |
| 16 | 1220 | 3870 | 4190 | 4270 | 3110 | 3870 | 1420 | 784 | 4110 | 1010 | 3340 | 1170 |
| 17 | 1220 | 3840 | 4160 | 4220 | 3500 | 3830 | 1520 | 712 | 4160 | 1120 | 3590 | 1120 |
| 18 | 1220 | 3840 | 4050 | 4140 | 3970 | 3760 | 1620 | 770 | 4180 | 1370 | 3810 | 1150 |
| 19 | 1210 | 3740 | 3950 | 4170 | 4070 | 3760 | 1720 | 830 | 4330 | 1320 | 3980 | 1160 |
| 20 | 1210 | 3650 | 3750 | 4140 | 4150 | 3750 | 1650 | 890 | 4420 | 1480 | 2420 | 1150 |
| 21 | 1200 | 3640 | 3700 | 4080 | 4250 | 3680 | 1840 | 940 | 4480 | 1310 | 2340 | 1240 |
| 22 | 1200 | 3690 | 3640 | 4020 | 4540 | 4080 | 1220 | 1000 | 4760 | 1490 | 2300 | 1300 |
| 23 | 1170 | 3700 | 3710 | 3970 | 3950 | 4170 | 1020 | 1060 | 4810 | 1580 | 2240 | 1190 |
| 24 | 1160 | 3690 | 3680 | 3930 | 3670 | 4190 | 1060 | 1120 | 4670 | 1490 | 2160 | 1190 |
| 25 | 1160 | 3670 | 3650 | 3880 | 3380 | 4140 | 800 | 1180 | 4740 | 1750 | 2070 | 1200 |
| 26 | 1150 | 3610 | 3630 | 3810 | 3380 | 4200 | 828 | 1230 | 4630 | 1700 | 2060 | 1180 |
| 27 | 1170 | 3670 | 3630 | 3760 | 3170 | 4040 | 857 | 1290 | 4560 | 1960 | 1470 | 1180 |
| 28 | 1700 | 3670 | 3640 | 3690 | 3190 | 4020 | 885 | 1350 | 4530 | 2260 | 1470 | 1180 |
| 29 | 2170 | 3670 | 3630 | 2360 | 3270 | 4020 | 913 | 1110 | 4500 | 2350 | 1340 | 1400 |
| 30 | 2630 | 3510 | 3640 | 1460 | --- | 3950 | 942 | 870 | 4450 | 2630 | 1500 | 1400 |
| 31 | 3010 | --- | 3690 | 1690 | --- | 3820 | --- | 880 | --- | 3020 | 1510 | --- |

09163340 MACK WASH NEAR MACK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 20.0 | 18.5 | 12.5 | 8.5 | 10.0 | 7.0 | 9.5 | 8.0 | 10.0 | 7.0 | 13.5 | 8.0 |
| 2 | 20.0 | 18.0 | 13.5 | 9.0 | 9.5 | 7.0 | 9.5 | 8.0 | 10.5 | 7.0 | 10.5 | 8.0 |
| 3 | 19.5 | 18.5 | 12.0 | 9.0 | 10.5 | 7.5 | 9.0 | 8.0 | 11.0 | 8.0 | 11.0 | 9.0 |
| 4 | 19.0 | 18.0 | 13.0 | 9.0 | 10.0 | 7.5 | 9.5 | 8.0 | 11.5 | 8.5 | 11.5 | 9.0 |
| 5 | 19.0 | 17.5 | 13.5 | 9.5 | 10.5 | 7.5 | 9.0 | 8.0 | 11.5 | 7.5 | 11.5 | 8.0 |
| 6 | 18.5 | 17.5 | 13.5 | 9.5 | 10.0 | 7.5 | 10.0 | 8.0 | 10.5 | 8.0 | 10.0 | 9.0 |
| 7 | 18.5 | 17.5 | 11.5 | 10.0 | 9.5 | 8.0 | 9.5 | 7.5 | 10.0 | 7.5 | 9.5 | 8.5 |
| 8 | 18.5 | 17.0 | 13.0 | 10.0 | 10.5 | 8.0 | 10.0 | 7.5 | 10.0 | 6.5 | 12.5 | 9.0 |
| 9 | 18.0 | 17.0 | 13.0 | 10.0 | 11.0 | 8.5 | 9.5 | 8.0 | 10.0 | 6.5 | 12.0 | 8.0 |
| 10 | 17.5 | 16.5 | 13.0 | 9.5 | 10.5 | 8.0 | 9.5 | 7.5 | 10.5 | 6.5 | 13.5 | 8.0 |
| 11 | 17.5 | 16.5 | 13.0 | 9.0 | 10.0 | 8.0 | 9.5 | 6.5 | 10.5 | 7.0 | 10.5 | 8.0 |
| 12 | 17.5 | 16.5 | 13.0 | 9.0 | 9.5 | 7.0 | 9.0 | 7.5 | 10.5 | 7.0 | 13.5 | 8.5 |
| 13 | 17.5 | 16.5 | 13.0 | 9.0 | 9.0 | 7.0 | 10.5 | 8.5 | 11.5 | 8.0 | 13.5 | 7.5 |
| 14 | 17.0 | 16.0 | 12.5 | 9.0 | 9.5 | 7.0 | 10.0 | 9.0 | 10.0 | 9.0 | 14.5 | 8.0 |
| 15 | 17.0 | 15.5 | 12.5 | 8.5 | 9.5 | 7.0 | 11.5 | 9.0 | 11.5 | 9.5 | 13.0 | 8.5 |
| 16 | 16.5 | 16.0 | 12.5 | 8.5 | 10.0 | 7.0 | 10.0 | 9.0 | 13.0 | 8.5 | 11.5 | 8.0 |
| 17 | 16.5 | 15.5 | 12.0 | 8.5 | 10.0 | 7.0 | 10.0 | 9.0 | 10.5 | 9.0 | 12.5 | 7.0 |
| 18 | 16.5 | 15.5 | 13.0 | 9.5 | 10.0 | 7.0 | 9.5 | 9.0 | 11.0 | 9.5 | 13.5 | 7.5 |
| 19 | 15.5 | 15.0 | 10.0 | 8.5 | 10.0 | 7.0 | 9.5 | 8.5 | 13.0 | 9.0 | 14.5 | 8.5 |
| 20 | 15.5 | 15.0 | 11.0 | 9.0 | 10.0 | 7.5 | 11.0 | 8.0 | 10.0 | 8.5 | 14.0 | 8.0 |
| 21 | 15.0 | 14.5 | 11.0 | 8.5 | 10.0 | 7.5 | 10.0 | 8.0 | 9.5 | 8.5 | 13.5 | 8.5 |
| 22 | 14.5 | 13.5 | 10.5 | 8.0 | 9.5 | 8.5 | 10.0 | 6.5 | 13.0 | 9.0 | 10.5 | 9.0 |
| 23 | 14.5 | 13.5 | 9.5 | 8.5 | 9.5 | 8.0 | 10.0 | 7.0 | 12.0 | 8.5 | 13.0 | 8.5 |
| 24 | 14.0 | 13.0 | 10.0 | 8.5 | 10.0 | 8.0 | 10.0 | 7.0 | 12.5 | 8.0 | 12.5 | 9.0 |
| 25 | 14.0 | 13.0 | 11.0 | 8.5 | 9.5 | 8.5 | 11.0 | 7.5 | 12.5 | 7.5 | 10.5 | 8.5 |
| 26 | 13.5 | 12.0 | 9.5 | 8.0 | 9.0 | 7.5 | 10.0 | 7.5 | 13.0 | 8.0 | 14.0 | 9.0 |
| 27 | 13.5 | 12.5 | 10.0 | 7.0 | 9.5 | 8.5 | 10.5 | 8.5 | 13.5 | 8.0 | 14.0 | 8.0 |
| 28 | 13.5 | 12.0 | 9.5 | 7.0 | 10.0 | 8.0 | 9.0 | 7.5 | 13.0 | 8.0 | 13.0 | 9.0 |
| 29 | 12.5 | 10.5 | 9.5 | 6.5 | 9.0 | 8.5 | 9.5 | 8.0 | 12.0 | 9.0 | 13.5 | 8.5 |
| 30 | 12.5 | 9.5 | 9.5 | 6.5 | 9.0 | 8.0 | 10.0 | 7.5 | --- | --- | 11.0 | 8.0 |
| 31 | 13.0 | 9.0 | --- | --- | 9.0 | 8.0 | 10.0 | 6.5 | --- | --- | 12.0 | 7.0 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 13.5 | 7.5 | 15.0 | 14.0 | 18.0 | 15.5 | 19.5 | 13.5 | 20.0 | 13.5 | 21.5 | 20.0 |
| 2 | 10.0 | 9.0 | 17.5 | 14.0 | 17.5 | 16.0 | 19.5 | 13.0 | 20.0 | 13.5 | 21.5 | 20.0 |
| 3 | 13.5 | 8.0 | 18.0 | 15.0 | 17.0 | 16.0 | 20.0 | 12.5 | 20.0 | 13.0 | 21.5 | 19.5 |
| 4 | 15.0 | 8.5 | 18.0 | 16.0 | 18.0 | 15.0 | 20.0 | 12.0 | 19.5 | 12.5 | 21.5 | 19.0 |
| 5 | 14.5 | 9.0 | 18.0 | 16.5 | 18.5 | 15.5 | 20.0 | 11.5 | 21.5 | 13.0 | 22.0 | 18.0 |
| 6 | 14.5 | 9.5 | 19.0 | 16.5 | 18.0 | 15.5 | 23.5 | 12.5 | 20.0 | 12.5 | 21.5 | 18.0 |
| 7 | 13.5 | 9.0 | 18.0 | 15.5 | 19.0 | 16.5 | 22.5 | 21.5 | 20.0 | 12.5 | 22.0 | 18.0 |
| 8 | 14.5 | 7.5 | 18.5 | 16.5 | 20.0 | 16.5 | 23.5 | 21.5 | 20.5 | 12.5 | 22.0 | 20.0 |
| 9 | 14.5 | 8.5 | 18.0 | 15.5 | 21.5 | 16.5 | 24.0 | 21.5 | 20.0 | --- | 21.0 | 20.5 |
| 10 | 13.0 | 9.5 | 17.0 | 15.0 | 21.5 | 15.0 | 24.0 | 22.5 | 20.0 | 13.0 | 21.0 | 20.0 |
| 11 | 11.0 | 8.5 | 16.0 | 15.0 | 20.5 | 13.5 | 24.5 | 21.5 | 20.0 | 11.5 | 21.0 | 19.5 |
| 12 | 14.5 | 7.5 | 15.0 | 14.5 | 19.5 | 12.0 | 23.5 | 22.0 | 20.0 | 12.0 | 20.5 | 20.0 |
| 13 | 15.0 | 8.0 | 16.5 | 14.0 | 19.5 | 11.0 | 23.5 | 21.5 | 20.0 | 13.0 | 20.5 | 19.5 |
| 14 | 15.5 | 8.5 | 16.5 | 14.5 | 18.5 | 10.0 | 24.5 | 21.5 | 20.0 | 13.5 | 20.5 | 19.5 |
| 15 | 15.5 | 9.0 | 15.5 | 14.0 | 19.0 | 10.5 | 24.5 | 22.0 | 19.5 | 14.0 | 20.0 | 19.5 |
| 16 | 16.0 | 9.0 | 15.0 | 13.5 | 19.0 | 10.5 | 23.5 | 22.0 | 19.5 | 13.0 | 20.0 | 19.5 |
| 17 | 16.0 | 9.0 | 16.5 | 14.0 | 18.0 | 11.0 | 25.0 | 22.0 | 19.5 | 12.5 | 20.0 | 19.5 |
| 18 | 16.0 | 9.0 | 16.5 | 15.0 | 19.5 | 11.0 | 25.0 | 22.0 | 19.0 | 12.5 | 20.5 | 19.5 |
| 19 | 15.0 | 12.5 | 17.0 | 15.5 | 19.0 | 11.5 | 23.5 | 21.0 | 13.5 | 12.0 | 20.0 | 18.5 |
| 20 | 15.5 | 13.0 | 18.5 | 16.5 | 19.5 | 11.5 | 23.5 | 19.0 | 19.0 | 11.5 | 20.0 | 18.5 |
| 21 | 16.5 | 11.0 | 19.5 | 18.0 | 19.0 | 11.5 | 22.5 | --- | 19.5 | 12.0 | 19.5 | 18.0 |
| 22 | 16.5 | 14.5 | 20.5 | 17.5 | 19.5 | 11.5 | 22.0 | 15.0 | 19.0 | 12.5 | 19.5 | 17.5 |
| 23 | 15.5 | 9.5 | 18.5 | 14.0 | 18.5 | 11.0 | 20.5 | 14.5 | 18.0 | 13.5 | 19.0 | 17.5 |
| 24 | 15.0 | 14.0 | 16.0 | 13.5 | 19.5 | 11.0 | 20.5 | 13.5 | 17.0 | 13.5 | 19.0 | 17.5 |
| 25 | 17.0 | 14.0 | 15.0 | 14.0 | 19.5 | 11.0 | 19.5 | 13.5 | 18.0 | 13.0 | 19.0 | 17.5 |
| 26 | 17.0 | 14.5 | 16.5 | 14.0 | 19.5 | 12.0 | 20.0 | 12.5 | 22.0 | 13.5 | 19.0 | 17.5 |
| 27 | 16.5 | 15.0 | 16.5 | 14.0 | 19.5 | 11.5 | 20.0 | 12.5 | 23.0 | 21.0 | 19.0 | 17.5 |
| 28 | 18.0 | 15.0 | 17.0 | 14.0 | 19.5 | 11.5 | 20.0 | 12.5 | 22.0 | 20.5 | 19.0 | 17.5 |
| 29 | 17.5 | 12.0 | 16.0 | 15.0 | 20.0 | 12.0 | 19.0 | 12.5 | 22.0 | 20.5 | 19.0 | 17.5 |
| 30 | 16.0 | 13.5 | 19.5 | 15.0 | 20.5 | 13.0 | 20.5 | 13.5 | 22.0 | 20.0 | 19.0 | 17.5 |
| 31 | --- | --- | 17.0 | 15.5 | --- | --- | 20.5 | 13.5 | 21.5 | 20.0 | --- | --- |

## 09163490 SALT CREEK NEAR MACK, CO

LOCATION.--Lat 39°13'18", long 108°53'32", in NE¼NW¼ sec.4, T.10 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 800 ft (240 m) downstream from bridge on Interstate Highway 70, 1.4 mi (2.3 km) west of Mack, and 2.1 mi (3.4 km) upstream from mouth.

DRAINAGE AREA.--436 mi² (1,129 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,440 ft (1,353 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Flow is mostly return flow and waste water from lands irrigated under the Government Highline Canal. Some regulation by many small detention reservoirs and stock ponds on tributaries above station and by Highline Lake, capacity, 3,400 acre-ft (4.19 hm³) on Mack Wash above station. A few small diversions for irrigation of hay meadows above station.

AVERAGE DISCHARGE.--7 years, 91.7 ft³/s (2.597 m³/s), 66,440 acre-ft/yr (81.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,580 ft³/s (44.7 m³/s) Aug. 8, 1974, gage height, 5.57 ft (1.698 m), from rating curve extended above 240 ft³/s (5.8 m³/s), on basis of slope-area measurement at gage height 5.69 ft (1.734 m); minimum daily, 4.2 ft³/s (0.12 m³/s) Jan. 24, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage of 5.69 ft (1.73 m) Sept. 19, 1972, from floodmarks, discharge, 1,680 ft³/s (47.6 m³/s), by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 510 ft³/s (14.4 m³/s) at 0800 May 12, gage height, 3.54 ft (1.079 m); minimum daily, 7.4 ft³/s (0.21 m³/s) Jan. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 203 | 39 | 18 | 8.4 | 20 | 15 | 16 | 253 | 211 | 99 | 101 | 173 |
| 2 | 198 | 36 | 18 | 7.8 | 17 | 14 | 17 | 249 | 205 | 109 | 105 | 173 |
| 3 | 188 | 32 | 17 | 8.2 | 11 | 14 | 17 | 239 | 194 | 111 | 105 | 154 |
| 4 | 181 | 32 | 17 | 9.0 | 9.4 | 14 | 15 | 228 | 185 | 118 | 107 | 140 |
| 5 | 178 | 32 | 18 | 9.7 | 10 | 14 | 15 | 226 | 176 | 120 | 97 | 130 |
| 6 | 176 | 27 | 18 | 8.5 | 12 | 14 | 17 | 229 | 158 | 120 | 86 | 124 |
| 7 | 176 | 27 | 17 | 7.6 | 10 | 23 | 19 | 220 | 159 | 144 | 84 | 126 |
| 8 | 173 | 28 | 16 | 7.4 | 11 | 24 | 16 | 243 | 156 | 141 | 88 | 142 |
| 9 | 164 | 28 | 15 | 8.6 | 12 | 16 | 16 | 265 | 153 | 139 | 82 | 148 |
| 10 | 163 | 27 | 14 | 13 | 12 | 15 | 18 | 284 | 142 | 135 | 84 | 194 |
| 11 | 164 | 27 | 14 | 11 | 11 | 15 | 18 | 332 | 138 | 126 | 87 | 195 |
| 12 | 164 | 27 | 17 | 12 | 13 | 19 | 17 | 430 | 126 | 128 | 90 | 213 |
| 13 | 164 | 25 | 18 | 13 | 14 | 15 | 17 | 417 | 120 | 148 | 80 | 216 |
| 14 | 168 | 25 | 17 | 30 | 16 | 16 | 17 | 398 | 122 | 160 | 88 | 224 |
| 15 | 173 | 25 | 18 | 50 | 20 | 22 | 20 | 379 | 109 | 157 | 106 | 228 |
| 16 | 170 | 25 | 19 | 20 | 29 | 16 | 23 | 391 | 116 | 155 | 114 | 222 |
| 17 | 176 | 25 | 20 | 16 | 14 | 14 | 24 | 387 | 120 | 146 | 115 | 211 |
| 18 | 182 | 25 | 20 | 22 | 40 | 14 | 39 | 382 | 118 | 141 | 110 | 209 |
| 19 | 186 | 25 | 19 | 28 | 55 | 14 | 195 | 372 | 116 | 130 | 103 | 197 |
| 20 | 196 | 25 | 18 | 14 | 138 | 15 | 236 | 360 | 113 | 118 | 105 | 187 |
| 21 | 213 | 23 | 17 | 14 | 44 | 15 | 250 | 358 | 118 | 107 | 103 | 170 |
| 22 | 214 | 23 | 18 | 14 | 37 | 16 | 253 | 354 | 111 | 90 | 100 | 158 |
| 23 | 226 | 23 | 17 | 13 | 25 | 19 | 264 | 349 | 109 | 86 | 105 | 154 |
| 24 | 247 | 21 | 17 | 14 | 20 | 17 | 283 | 326 | 101 | 88 | 140 | 157 |
| 25 | 251 | 21 | 13 | 16 | 15 | 20 | 284 | 306 | 97 | 97 | 127 | 163 |
| 26 | 251 | 21 | 18 | 12 | 15 | 22 | 290 | 286 | 84 | 109 | 121 | 161 |
| 27 | 192 | 22 | 14 | 12 | 15 | 20 | 264 | 264 | 92 | 111 | 153 | 160 |
| 28 | 94 | 21 | 12 | 12 | 17 | 18 | 244 | 238 | 99 | 113 | 171 | 155 |
| 29 | 57 | 19 | 11 | 12 | 16 | 16 | 232 | 233 | 100 | 111 | 170 | 154 |
| 30 | 46 | 18 | 10 | 14 | --- | 16 | 238 | 240 | 99 | 107 | 171 | 158 |
| 31 | 39 | --- | 9.0 | 12 | --- | 17 | --- | 231 | --- | 105 | 174 | --- |
| TOTAL | 5373 | 774 | 504.0 | 449.2 | 678.4 | 519 | 3374 | 9469 | 3947 | 3769 | 3472 | 5196 |
| MEAN | 173 | 25.8 | 16.3 | 14.5 | 23.4 | 16.7 | 112 | 305 | 132 | 122 | 112 | 173 |
| MAX | 251 | 39 | 20 | 50 | 138 | 24 | 290 | 430 | 211 | 160 | 174 | 228 |
| MIN | 39 | 18 | 9.0 | 7.4 | 9.4 | 14 | 15 | 220 | 84 | 86 | 80 | 124 |
| AC-FT | 10660 | 1540 | 1000 | 891 | 1350 | 1030 | 6690 | 18780 | 7830 | 7480 | 6890 | 10310 |

CAL YR 1979 TOTAL 36922.0 MEAN 101 MAX 367 MIN 5.0 AC-FT 73230
WTR YR 1980 TOTAL 37524.6 MEAN 103 MAX 430 MIN 7.4 AC-FT 74430

## 09163490 SALT CREEK NEAR MACK, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1973 to current year.
WATER TEMPERATURES: April 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 6,760 micromhos Jan. 8, 1977; minimum, 622 micromhos Apr. 28, 1979.
WATER TEMPERATURES: Maximum, 36.5°C July 17, 1976; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 6,550 micromhos Mar.11; minimum, 885 micromhos May 5.
WATER TEMPERATURES: Maximum, 28.5°C June 30, July 21, 31; minimum recorded, 0.0°C November 24.

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH FIELD (UNITS) | TEMPER-ATURE, WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | HARD-NESS (MG/L AS CACO3) | HARD-NESS, NONCAR-BONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | |
| 07... | 0845 | 27 | 4850 | 7.8 | 7.0 | 9.8 | 2100 | 1800 |
| JAN | | | | | | | | |
| 29... | 0800 | 16 | 5050 | 7.7 | 1.0 | 11.6 | 2000 | 1700 |
| APR | | | | | | | | |
| 23... | 0730 | 269 | 1300 | 7.8 | 14.0 | 8.8 | 400 | 240 |
| JUL | | | | | | | | |
| 17... | 0630 | 159 | 1550 | 7.9 | 18.0 | 7.5 | 610 | 450 |

| DATE | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY (MG/L AS CACO3) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 07... | 450 | 230 | 420 | 4.0 | 11 | 290 | 2200 | 200 | .3 |
| JAN | | | | | | | | | |
| 29... | 390 | 250 | 460 | 4.5 | 8.1 | 290 | 2400 | 220 | .3 |
| APR | | | | | | | | | |
| 23... | 97 | 39 | 130 | 2.8 | 4.5 | 160 | 380 | 120 | .3 |
| JUL | | | | | | | | | |
| 17... | 150 | 58 | 120 | 2.1 | 4.3 | 160 | 570 | 97 | .4 |

| DATE | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | SOLIDS, DIS-SOLVED (TONS PER AC-FT) | SOLIDS, DIS-SOLVED (TONS PER DAY) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | PHOS-PHORUS, DIS-SOLVED (MG/L AS P) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | |
| 07... | 13 | 3740 | 5.09 | 273 | 8.2 | .090 | 40 | 110 |
| JAN | | | | | | | | |
| 29... | 11 | 3940 | 5.36 | 179 | 5.2 | .010 | 50 | 120 |
| APR | | | | | | | | |
| 23... | 8.8 | 879 | 1.20 | 638 | .60 | .010 | 40 | 8 |
| JUL | | | | | | | | |
| 17... | 8.7 | 1120 | 1.52 | 481 | 2.7 | .040 | 30 | 10 |

## 09163490 SALT CREEK NEAR MACK, CO--Continued

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
### MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1530 | 4210 | 4740 | 4850 | 5020 | 3910 | 3750 | 936 | 1280 | 1330 | 1810 | 1820 |
| 2 | 1270 | 4360 | 4760 | 4850 | 5020 | 4030 | 3680 | 918 | 1300 | 1260 | 1740 | 1900 |
| 3 | 1280 | 4560 | 4770 | 4870 | 5060 | 4180 | 3770 | 910 | 1300 | 1260 | 1800 | 2020 |
| 4 | 1330 | 4700 | 4790 | 4880 | 5060 | 4330 | 3740 | 906 | 1320 | 1250 | 1750 | 2130 |
| 5 | 1400 | 4810 | 4800 | 4890 | 5050 | 4480 | 3480 | 905 | 1360 | 1250 | 2040 | 2210 |
| 6 | 1460 | 4930 | 4820 | 4900 | 5000 | 4610 | 3210 | 906 | 1280 | 1340 | 2140 | 1820 |
| 7 | 1500 | 4730 | 4820 | 4920 | 5020 | 4760 | 4400 | 911 | 1310 | 1340 | 2330 | 1840 |
| 8 | 1570 | 4770 | 4830 | 4920 | 5050 | 5110 | 5200 | 1400 | 1290 | 1450 | 2340 | 1760 |
| 9 | 1650 | 4730 | 4840 | 4940 | 5020 | 5390 | 5360 | 1010 | 1370 | 1440 | 2160 | 1680 |
| 10 | 1700 | 4720 | 4860 | 4160 | 5020 | 5520 | 5050 | 1040 | 1490 | 1510 | 2130 | 1680 |
| 11 | 1760 | 4700 | 4860 | 3290 | 5060 | 5790 | 4660 | 1010 | 1530 | 1560 | 2090 | 1670 |
| 12 | 1830 | 4700 | 4890 | 4160 | 5050 | 5630 | 4490 | 1210 | 1640 | 1540 | 2010 | 1650 |
| 13 | 1890 | 4690 | 4860 | 4410 | 5050 | 6030 | 4500 | 1290 | 1740 | 1520 | 2000 | 1650 |
| 14 | 1950 | 4680 | 4850 | 3420 | 4970 | 5310 | 4370 | 1210 | 1680 | 1330 | 2040 | 1640 |
| 15 | 1720 | 4640 | 4840 | 2680 | 4990 | 5290 | 4080 | 1290 | 1530 | 1340 | 1960 | 1610 |
| 16 | 1460 | 4640 | 4840 | 3260 | 5230 | 4830 | 3560 | 1210 | 1450 | 1340 | 1780 | 1700 |
| 17 | 1490 | 4650 | 4840 | 3880 | 5060 | 4560 | 3350 | 1180 | 1430 | 1500 | 1780 | 1570 |
| 18 | 1560 | 4620 | 4830 | 3980 | 4970 | 4410 | 3200 | 1150 | 1500 | 1460 | 1770 | 1550 |
| 19 | 1640 | 4550 | 4870 | 3930 | 3860 | 4540 | 2150 | 1140 | 1550 | 1520 | 1800 | 1670 |
| 20 | 1740 | 4560 | 4840 | 4290 | 2570 | 4250 | 1670 | 1150 | 1570 | 1540 | 1790 | 1620 |
| 21 | 1820 | 4650 | 4800 | 4410 | 2050 | 4020 | 1540 | 1160 | 1620 | 1680 | 1750 | 1630 |
| 22 | 1890 | 4620 | 4560 | 4510 | 2450 | 3900 | 1410 | 1150 | 1660 | 1830 | 1800 | 1700 |
| 23 | 1990 | 4630 | 4710 | 4540 | 2800 | 3860 | 1410 | 1150 | 1580 | 1830 | 1920 | 1830 |
| 24 | 2060 | 4660 | 4770 | 4600 | 3120 | 4010 | 1520 | 1150 | 1430 | 1720 | 1930 | 2100 |
| 25 | 2130 | 4660 | 4800 | 4670 | 3370 | 3720 | 1100 | 1180 | 1390 | 1660 | 1730 | 2010 |
| 26 | 2250 | 4680 | 4790 | 4750 | 3570 | 4100 | 995 | 1190 | 1420 | 1590 | 1780 | 2020 |
| 27 | 2420 | 4690 | 4800 | 4830 | 3710 | 4070 | 972 | 1230 | 1380 | 1610 | 1660 | 2090 |
| 28 | 2860 | 4700 | 4800 | 4900 | 3760 | 3790 | 958 | 1280 | 1360 | 1660 | 1580 | 2080 |
| 29 | 3500 | 4700 | 4820 | 4760 | 3830 | 3600 | 963 | 1280 | 1340 | 1690 | 1620 | 2070 |
| 30 | 3820 | 4730 | 4820 | 4940 | --- | 3630 | 952 | 1260 | 1340 | 1700 | 1680 | 2100 |
| 31 | 4040 | --- | 4840 | 5110 | --- | 3680 | --- | --- | --- | 1780 | 1740 | --- |

## 09163490 SALT CREEK NEAR MACK. CO--Continued

### TEMPERATURE. WATER (DEG. C). WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 20.5 | 13.0 | 8.5 | 2.0 | --- | --- | 4.0 | 2.0 | 2.5 | .5 | 11.5 | 3.5 |
| 2 | 20.5 | 13.5 | 9.0 | 3.0 | --- | --- | 4.0 | 2.5 | 3.0 | .5 | 8.0 | 3.5 |
| 3 | 21.0 | 14.0 | 9.0 | 3.5 | --- | --- | 3.5 | 2.0 | 5.5 | 1.0 | 8.5 | 5.0 |
| 4 | 19.0 | 12.0 | 9.5 | 4.0 | --- | --- | 4.0 | 2.5 | 7.5 | 2.5 | 10.0 | 5.5 |
| 5 | 20.0 | 11.5 | 10.0 | 4.5 | --- | --- | 4.0 | 2.5 | 6.5 | 1.0 | 9.0 | 4.0 |
| 6 | 19.0 | 11.0 | 9.5 | 3.5 | --- | --- | 5.0 | 2.0 | 6.0 | 2.5 | 7.5 | 6.5 |
| 7 | 19.5 | 11.0 | 8.0 | 6.0 | --- | --- | 3.0 | 1.0 | 6.0 | 3.5 | 7.0 | 5.0 |
| 8 | 19.0 | 11.5 | 10.0 | 7.0 | --- | --- | 3.5 | 1.0 | 6.0 | 1.0 | 10.5 | 5.0 |
| 9 | 19.0 | 11.0 | 10.0 | 7.0 | --- | --- | 4.0 | 1.5 | 4.0 | 1.0 | 10.5 | 3.0 |
| 10 | 16.5 | 10.5 | 8.5 | 4.0 | --- | --- | 5.0 | 1.0 | 4.0 | 1.0 | 12.0 | 3.0 |
| 11 | 18.0 | 10.5 | 7.5 | 3.5 | 5.0 | 1.0 | 2.5 | 1.0 | 5.0 | .5 | 8.5 | 4.0 |
| 12 | 18.0 | 11.0 | 6.5 | --- | 1.0 | .5 | 3.0 | 2.0 | 5.0 | .5 | 11.0 | 5.0 |
| 13 | 17.0 | 10.5 | 7.0 | --- | 1.0 | .5 | 6.5 | 2.5 | 7.0 | 2.0 | 12.5 | 3.0 |
| 14 | 16.5 | 10.5 | 7.0 | 1.5 | 1.0 | .5 | 5.0 | 1.5 | 7.0 | 5.0 | 14.5 | 3.5 |
| 15 | 17.5 | 10.5 | 6.5 | 1.5 | 1.0 | .5 | 6.5 | 2.5 | 9.5 | 5.5 | 13.0 | 5.0 |
| 16 | 17.0 | 12.0 | 6.5 | 1.0 | 1.0 | .5 | 5.5 | 4.0 | 9.0 | 4.5 | 10.0 | 4.5 |
| 17 | 16.0 | 11.0 | 6.0 | 1.0 | 1.0 | .5 | 6.5 | 4.5 | 8.5 | 6.0 | 11.0 | 1.5 |
| 18 | 18.0 | 12.0 | 8.5 | 5.0 | 1.0 | .5 | 6.0 | 4.0 | 8.5 | 6.5 | 13.0 | 2.0 |
| 19 | 16.5 | 13.0 | 6.0 | 3.0 | 1.0 | .5 | 5.0 | 3.5 | 10.0 | 4.5 | 14.5 | 5.0 |
| 20 | 16.5 | 12.0 | 6.5 | 3.5 | 1.0 | .5 | 6.0 | 3.0 | 8.0 | 4.5 | 15.0 | 4.5 |
| 21 | 15.5 | 10.5 | 6.0 | 2.0 | 1.0 | .5 | 6.0 | 2.5 | 6.5 | 4.5 | 14.0 | 4.5 |
| 22 | 14.5 | 8.5 | 3.5 | .5 | 2.0 | 1.0 | 5.0 | 1.5 | 9.5 | 5.0 | 8.5 | 6.5 |
| 23 | 13.5 | 9.0 | 2.5 | .5 | 3.0 | 2.0 | 4.0 | 1.0 | 8.5 | 5.0 | 12.5 | 5.5 |
| 24 | 13.5 | 9.0 | 3.0 | .0 | 3.5 | 1.5 | 4.0 | 1.0 | 10.0 | 3.5 | 13.5 | 6.5 |
| 25 | 14.5 | 9.0 | --- | --- | 2.5 | .5 | 5.5 | 1.0 | 9.5 | 2.0 | 9.0 | 5.0 |
| 26 | 15.0 | 9.0 | --- | --- | 2.0 | .5 | 4.5 | 1.0 | 10.0 | 2.5 | 13.5 | 4.5 |
| 27 | 14.0 | 9.0 | --- | --- | 4.0 | 2.0 | 5.5 | 2.0 | 10.5 | 3.0 | 13.5 | 3.5 |
| 28 | 13.5 | 7.0 | --- | --- | 5.0 | 2.5 | 4.0 | 1.5 | 10.0 | 3.0 | 12.0 | 6.0 |
| 29 | 12.5 | 8.5 | --- | --- | 3.5 | 2.0 | 4.5 | 1.5 | 10.5 | 6.0 | 14.0 | 5.5 |
| 30 | 10.5 | 6.5 | --- | --- | 4.0 | 2.5 | 5.5 | 1.0 | --- | --- | 9.5 | 3.5 |
| 31 | 9.5 | 3.5 | --- | --- | 3.5 | 2.0 | 2.0 | .5 | --- | --- | 10.0 | 1.0 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 13.5 | 2.5 | 17.0 | 11.5 | 19.0 | 11.0 | 26.5 | 18.0 | 26.5 | 20.0 | --- | --- |
| 2 | 9.0 | 6.0 | 17.5 | 11.0 | 20.0 | 10.5 | 25.5 | 18.5 | 26.5 | 20.0 | --- | --- |
| 3 | 14.5 | 3.5 | 18.0 | 12.0 | 21.5 | 11.0 | 27.0 | 18.0 | 26.5 | 19.5 | --- | --- |
| 4 | 17.5 | 5.5 | 16.5 | 12.0 | 22.0 | 11.5 | 25.5 | 17.5 | 26.5 | 18.0 | --- | --- |
| 5 | 17.0 | 7.0 | 18.0 | 12.0 | 22.0 | 12.0 | 25.0 | 15.5 | 27.0 | 18.5 | --- | --- |
| 6 | 16.0 | 8.0 | 18.0 | 12.0 | 21.5 | 12.0 | 25.0 | 15.0 | 27.0 | 17.5 | --- | --- |
| 7 | 14.5 | 7.0 | --- | --- | 22.5 | 12.0 | 22.0 | 17.5 | 27.5 | 17.5 | 22.0 | 17.5 |
| 8 | 15.5 | 3.5 | --- | --- | 22.0 | 12.5 | 27.0 | 17.5 | 27.5 | 17.5 | --- | --- |
| 9 | 16.0 | 5.0 | 15.0 | 12.0 | 24.0 | 13.0 | 27.5 | 17.5 | 27.5 | 19.0 | --- | --- |
| 10 | 14.0 | 7.5 | 14.0 | 11.0 | 24.0 | 14.0 | 26.5 | 19.0 | 27.5 | 18.0 | --- | --- |
| 11 | 11.0 | 5.5 | 11.5 | 10.5 | 23.0 | 14.0 | 26.5 | 19.0 | 27.0 | 17.5 | --- | --- |
| 12 | 15.5 | 4.0 | 10.0 | 9.0 | 23.0 | 14.0 | 25.5 | 19.0 | 26.0 | 16.5 | --- | --- |
| 13 | 16.0 | 4.5 | 15.0 | 8.0 | 23.5 | 13.0 | 26.5 | 19.5 | 27.0 | 18.0 | --- | --- |
| 14 | 18.0 | 5.0 | 14.5 | 10.5 | 22.5 | 13.0 | 26.5 | 18.0 | 25.5 | 19.5 | --- | --- |
| 15 | 18.0 | 7.0 | 14.5 | 10.5 | 22.5 | 13.0 | 28.0 | 17.0 | --- | --- | --- | --- |
| 16 | 18.0 | 7.5 | 16.5 | 11.0 | 23.5 | 14.0 | 28.0 | 18.0 | --- | --- | --- | --- |
| 17 | 18.0 | 7.0 | 15.5 | 11.5 | 23.5 | 14.0 | 27.0 | 18.0 | 25.5 | 16.5 | --- | --- |
| 18 | 18.5 | 7.5 | 17.5 | 10.5 | 24.5 | 14.0 | 27.0 | 18.0 | --- | --- | --- | --- |
| 19 | 18.5 | 11.0 | 18.0 | 12.0 | 24.5 | 14.5 | 27.5 | 18.5 | --- | --- | --- | --- |
| 20 | 19.0 | 12.5 | 19.5 | 13.0 | 24.5 | 15.0 | 28.0 | 16.0 | --- | --- | 20.5 | 15.5 |
| 21 | 17.5 | 13.0 | 20.0 | 14.0 | 24.5 | 15.0 | 28.5 | 18.0 | --- | --- | 19.5 | 14.0 |
| 22 | 18.0 | 13.0 | 18.0 | 14.5 | 24.5 | 14.5 | 28.0 | 18.0 | --- | --- | 19.5 | 13.0 |
| 23 | 14.5 | 12.5 | 18.5 | 13.5 | 24.0 | 14.0 | 27.5 | 19.5 | --- | --- | 19.0 | 11.5 |
| 24 | 15.0 | 11.0 | 15.5 | 10.5 | 24.5 | 14.0 | 27.5 | 18.0 | --- | --- | --- | --- |
| 25 | 17.5 | 11.0 | 13.5 | 9.0 | 24.5 | 14.0 | 26.0 | 18.5 | --- | --- | --- | --- |
| 26 | 16.5 | 11.0 | 16.0 | 8.0 | 25.5 | 15.0 | 27.5 | 18.0 | --- | --- | 19.5 | 12.0 |
| 27 | 18.0 | 11.0 | 17.5 | 10.0 | 25.0 | 15.5 | 28.0 | 18.0 | 24.5 | 16.0 | --- | --- |
| 28 | 19.0 | 11.0 | 19.5 | 8.5 | 25.5 | 14.5 | 27.5 | 18.0 | 24.0 | 16.0 | --- | --- |
| 29 | 16.5 | 12.0 | 19.5 | 11.0 | 27.0 | 16.0 | 25.5 | 18.5 | --- | --- | 19.5 | 12.5 |
| 30 | 17.5 | 12.0 | 21.0 | 10.0 | 28.5 | 18.0 | 27.5 | 19.0 | --- | --- | --- | --- |
| 31 | --- | --- | 20.0 | 10.0 | --- | --- | 28.5 | 19.5 | --- | --- | --- | --- |

## 09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE

LOCATION.--Lat 39°07'45", long 109°01'36", in SE¼NW¼ sec.5, T.11 S., R.104 W., Mesa County, Hydrologic Unit 14010005, on right bank 0.7 mi (1.1 km) downstream from McDonald Creek, 12 mi (19 km) southwest of Mack, Colo., and 1.5 mi (2.4 km) upstream from Colorado-Utah State line.

DRAINAGE AREA.--17,843 mi² (46,213 km²).

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WRD Colo. 1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,325 ft (1,318 m), from topographic map. May 1951, to October 1980, water-stage recorder at site 5.7 mi (9.2 km) upstream at different datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation. (records include all return flow from irrigated areas.)

AVERAGE DISCHARGE.--29 years, 5,788 ft³/s (163.9 m³/s), 4,193,000 acre-ft/yr (5,170 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,800 ft³/s (1,610 m³/s) June 9, 1957, gage height, 16.40 ft (4.999 m), site and datum then in use; minimum daily, 960 ft³/s (27.2 m³/s) Sept. 7, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,100 ft³/s (909 m³/s) at 2400 May 24, gage height, 10.82 ft (3.298 m); minimum daily, 2,380 ft³/s (67.4 m³/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3710 | 3780 | 3360 | 3680 | 3730 | 4070 | 4320 | 15400 | 22200 | 13200 | 3040 | 3490 |
| 2 | 3730 | 3920 | 3340 | 3800 | 3620 | 4170 | 4240 | 15100 | 21400 | 14200 | 3000 | 3460 |
| 3 | 3690 | 4220 | 3800 | 3980 | 3760 | 3950 | 4230 | 14200 | 20600 | 14300 | 2970 | 3380 |
| 4 | 3620 | 3700 | 4280 | 4020 | 3950 | 3960 | 4260 | 14000 | 20200 | 13900 | 2890 | 3080 |
| 5 | 3540 | 3480 | 4480 | 4000 | 4000 | 4040 | 4170 | 14800 | 22300 | 13100 | 2780 | 2900 |
| 6 | 3400 | 3520 | 4420 | 3950 | 3950 | 4050 | 4150 | 15600 | 24300 | 11600 | 2780 | 3000 |
| 7 | 3730 | 3540 | 4550 | 3920 | 3900 | 4200 | 4240 | 17300 | 26100 | 10400 | 2910 | 3040 |
| 8 | 3690 | 3580 | 4480 | 4030 | 3930 | 4360 | 4250 | 20300 | 25500 | 9620 | 2890 | 3080 |
| 9 | 3650 | 4350 | 4450 | 4040 | 3800 | 4350 | 4120 | 21400 | 22100 | 9120 | 2650 | 3060 |
| 10 | 3700 | 4420 | 4400 | 4070 | 3640 | 4230 | 4020 | 21500 | 25400 | 8610 | 2640 | 3240 |
| 11 | 3740 | 4420 | 4280 | 4350 | 3570 | 4190 | 4050 | 20400 | 27900 | 7590 | 2600 | 3700 |
| 12 | 3290 | 4550 | 4300 | 4080 | 3590 | 4200 | 3830 | 21900 | 30100 | 7130 | 2440 | 4200 |
| 13 | 3120 | 4550 | 4080 | 4030 | 3640 | 4140 | 4130 | 21500 | 30200 | 6850 | 2380 | 4200 |
| 14 | 3460 | 4250 | 3850 | 4390 | 3810 | 4060 | 4080 | 19100 | 28200 | 7460 | 2500 | 4220 |
| 15 | 3650 | 3480 | 3720 | 4830 | 4330 | 4080 | 4100 | 17800 | 26700 | 6890 | 2550 | 4200 |
| 16 | 3750 | 3380 | 3780 | 4610 | 4880 | 4140 | 4490 | 16900 | 25300 | 6300 | 3030 | 4200 |
| 17 | 3700 | 3420 | 3880 | 4220 | 4570 | 4110 | 4450 | 18100 | 23600 | 5730 | 3360 | 4050 |
| 18 | 3120 | 3460 | 4080 | 3580 | 4330 | 4070 | 4640 | 20800 | 23500 | 5270 | 3370 | 3980 |
| 19 | 3120 | 3580 | 4120 | 3660 | 5210 | 4030 | 5230 | 18900 | 22900 | 4910 | 3140 | 3720 |
| 20 | 3060 | 3750 | 4000 | 4020 | 5390 | 4050 | 6100 | 16400 | 22300 | 4630 | 2950 | 3520 |
| 21 | 3320 | 3650 | 3950 | 3980 | 5120 | 4090 | 8170 | 19200 | 21600 | 4500 | 2840 | 3480 |
| 22 | 3680 | 3560 | 4020 | 3920 | 4500 | 4160 | 9260 | 22700 | 21000 | 4270 | 2770 | 3500 |
| 23 | 3900 | 3400 | 4150 | 3840 | 4440 | 4430 | 10600 | 26200 | 20400 | 3940 | 2740 | 3500 |
| 24 | 3950 | 3260 | 4180 | 3640 | 4350 | 4380 | 11600 | 29600 | 19800 | 3770 | 3080 | 3480 |
| 25 | 3720 | 3320 | 4120 | 3650 | 4080 | 4390 | 11500 | 30200 | 17300 | 3650 | 3490 | 3540 |
| 26 | 3750 | 3540 | 4020 | 3800 | 3980 | 4400 | 10800 | 26400 | 16700 | 3630 | 3920 | 3480 |
| 27 | 4180 | 3650 | 4080 | 3900 | 3940 | 4360 | 11000 | 23900 | 16500 | 3690 | 4120 | 3420 |
| 28 | 3800 | 3500 | 4100 | 3970 | 3980 | 4060 | 11300 | 22600 | 16100 | 3520 | 4240 | 3360 |
| 29 | 3750 | 3140 | 4050 | 4030 | 4030 | 4120 | 11900 | 22300 | 15000 | 3340 | 3880 | 3300 |
| 30 | 3750 | 3340 | 4020 | 4000 | --- | 4050 | 13300 | 22800 | 13500 | 3210 | 3730 | 3280 |
| 31 | 3780 | --- | 3900 | 3880 | --- | 4340 | --- | 21900 | --- | 3110 | 3580 | --- |
| TOTAL | 112050 | 111710 | 126240 | 123870 | 120020 | 129230 | 196530 | 629200 | 668700 | 221440 | 95260 | 106060 |
| MEAN | 3615 | 3724 | 4072 | 3996 | 4139 | 4169 | 6551 | 20300 | 22290 | 7143 | 3073 | 3535 |
| MAX | 4180 | 4550 | 4550 | 4830 | 5390 | 4430 | 13300 | 30200 | 30200 | 14300 | 4240 | 4220 |
| MIN | 3060 | 3140 | 3340 | 3580 | 3570 | 3950 | 3830 | 14000 | 13500 | 3110 | 2380 | 2900 |
| AC-FT | 222300 | 221600 | 250400 | 245700 | 238100 | 256300 | 389800 | 1248000 | 1326000 | 439200 | 188900 | 210400 |

CAL YR 1979 TOTAL 2865680 MEAN 7851 MAX 35400 MIN 3060 AC-FT 5684000
WTR YR 1980 TOTAL 2640310 MEAN 7214 MAX 30200 MIN 2380 AC-FT 5237000

## 09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE
(National stream-quality accounting network station)

LOCATION.--Lat 39°05'18", long 109°06'01" in NE¼NW¼ sec.12, T.20 S., R.25 E., Grand County, Hydrologic Unit 14030001, on right bank 0.3 mi (0.5 km) downstream from Bitter Creek, 1.0 mi (1.6 km) northeast of Westwater, Ut, and 4.0 mi (6.4 km) downstream from Colorado-Utah State line.

DRAINAGE AREA.--18,034 mi² (46,708 km²).

PERIOD OF RECORD.--May 1962 to June 1969, October 1972 to current year (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1962 to June 1969, October 1972 to current year.
WATER TEMPERATURES: May 1962 to June 1969, October 1972 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1972.

REMARKS.--Records of discharge given for Colorado River near Colorado-Utah State line (station 09163500). Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,140 micromhos Mar. 17, 1969; minimum, 357 micromhos June 22, 1965.
WATER TEMPERATURES: Maximum, 28.0°C July 30, 1966, July 13, 1968; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,660 micromhos Oct. 15; minimum, 385 micromhos June 25.
WATER TEMPERATURES: Maximum, 25.0°C Aug. 7, 8; minimum, freezing point several days during December to February.

### WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTANTANEOUS (CFS) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH FIELD (UNITS) | TEMPERATURE, WATER (DEG C) | TURBIDITY (NTU) | OXYGEN, DISSOLVED (MG/L) | NITROGEN, DISSOLVED (MG/L AS N) | COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) | STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | HARDNESS (MG/L AS CACO3) | HARDNESS, NONCARBONATE (MG/L CACO3) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>17... | 0800 | E3400 | 1220 | 7.4 | 10.0 | 12 | 8.8 | 1.8 | 76 | 220 | 460 | 370 |
| NOV<br>16... | 0940 | E3200 | 1200 | 8.0 | 4.0 | 1.6 | 12.4 | 1.4 | K5 | 43 | 420 | 260 |
| DEC<br>07... | 1200 | 4580 | 950 | 7.8 | 1.0 | 3.0 | 12.2 | 1.1 | K6 | 62 | 310 | 170 |
| JAN<br>08... | 1230 | 4110 | 1000 | 7.8 | 1.0 | 1.9 | 12.7 | 1.2 | -- | -- | 310 | 170 |
| MAR<br>05... | 0930 | 3910 | 960 | 7.7 | 6.0 | 55 | 14.6 | 1.3 | K5 | K40 | 310 | 170 |
| APR<br>03... | 1130 | 4940 | 950 | 7.9 | 6.5 | 34 | -- | .78 | <5 | K71 | 300 | 110 |
| MAY<br>07... | 1200 | 16800 | 460 | 7.6 | 13.0 | 320 | 9.2 | 2.3 | 400 | 1200 | 170 | 73 |
| JUN<br>04... | 1130 | 20700 | 400 | 7.4 | 14.0 | 100 | 8.0 | 1.0 | <1 | 390 | 150 | 60 |
| JUL<br>08... | 0800 | 10200 | 600 | 8.0 | 19.0 | 27 | 7.2 | .66 | <20 | 680 | 220 | 110 |
| AUG<br>06... | 1100 | 2780 | 1200 | 7.7 | 22.0 | 27 | 6.8 | 2.0 | K160 | 86 | 460 | 320 |
| SEP<br>03... | 1130 | 3470 | 1350 | 7.8 | 18.0 | 37 | 7.5 | 1.8 | 200 | K420 | 470 | 300 |

| DATE | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | SODIUM ADSORPTION RATIO | POTASSIUM, DISSOLVED (MG/L AS K) | ALKALINITY (MG/L AS CACO3) | SULFATE DISSOLVED (MG/L AS SO4) | CHLORIDE, DISSOLVED (MG/L AS CL) | FLUORIDE, DISSOLVED (MG/L AS F) | SILICA, DISSOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT<br>17... | 120 | 40 | 100 | 2.0 | 6.1 | 95 | 450 | 85 | .4 | 9.9 | 943 | 873 |
| NOV<br>16... | 110 | 36 | 110 | 2.3 | 4.4 | 160 | 340 | 100 | .3 | 9.5 | 857 | 811 |
| DEC<br>07... | 78 | 29 | 87 | 2.1 | 3.6 | 140 | 260 | 78 | .3 | 10 | 669 | 633 |
| JAN<br>08... | 79 | 27 | 92 | 2.3 | 3.4 | 140 | 250 | 85 | .1 | 9.4 | 633 | 633 |
| MAR<br>05... | 76 | 28 | 92 | 2.3 | -- | 140 | 260 | 87 | .3 | 11 | 604 | -- |
| APR<br>03... | 74 | 29 | 92 | 2.3 | 3.7 | 190 | 220 | 74 | .3 | 9.2 | 648 | 618 |
| MAY<br>07... | 46 | 14 | 34 | 1.1 | 2.5 | 100 | 110 | 24 | .3 | 11 | 326 | 306 |
| JUN<br>04... | 39 | 12 | 25 | .9 | 1.7 | 87 | 80 | 19 | .2 | 9.6 | 266 | 240 |
| JUL<br>08... | 60 | 18 | 46 | 1.3 | 2.6 | 110 | 150 | 39 | .3 | 10 | 419 | 394 |
| AUG<br>06... | 120 | 38 | 110 | 2.2 | 4.6 | 140 | 410 | 96 | .5 | 9.2 | 935 | 878 |
| SEP<br>03... | 120 | 42 | 110 | 2.2 | 5.1 | 170 | 430 | 96 | .4 | 11 | 987 | 922 |

E ESTIMATED.
K BASED ON NON-IDEAL COLONY COUNT.

## 09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE

### WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | SOLIDS, DIS- SOLVED (TONS PER DAY) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, ORGANIC TOTAL (MG/L AS N) | NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) | NITRO- GEN, TOTAL (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 17... | E8650 | .86 | .91 | .080 | .080 | .86 | .77 | .94 | .85 | 1.8 | .010 |
| NOV | | | | | | | | | | | |
| 16... | E7400 | .93 | .96 | .010 | .030 | .76 | .43 | .77 | .46 | 1.7 | .020 |
| DEC | | | | | | | | | | | |
| 07... | 8270 | .67 | .71 | .040 | .040 | .45 | .35 | .49 | .39 | 1.2 | .150 |
| JAN | | | | | | | | | | | |
| 08... | 7020 | .58 | .58 | .000 | .010 | .69 | .61 | .69 | .62 | 1.3 | .020 |
| MAR | | | | | | | | | | | |
| 05... | 6380 | .50 | .51 | .200 | .120 | .58 | .64 | .78 | .76 | 1.3 | .090 |
| APR | | | | | | | | | | | |
| 03... | 8640 | .34 | .34 | .100 | .080 | .42 | .36 | .52 | .44 | .86 | .060 |
| MAY | | | | | | | | | | | |
| 07... | 14800 | 2.1 | .99 | .220 | .140 | 1.6 | 1.2 | 1.8 | 1.3 | 3.9 | .340 |
| JUN | | | | | | | | | | | |
| 04... | 14900 | .30 | .33 | .040 | .040 | 1.3 | .63 | 1.3 | .67 | 1.6 | .120 |
| JUL | | | | | | | | | | | |
| 08... | 11500 | .45 | .36 | .040 | .010 | .58 | .29 | .62 | .30 | 1.1 | .040 |
| AUG | | | | | | | | | | | |
| 06... | 7020 | 1.0 | 1.1 | .060 | .030 | 3.9 | .87 | 4.0 | .90 | 5.0 | .110 |
| SEP | | | | | | | | | | | |
| 03... | 9250 | 1.2 | 1.1 | .310 | .010 | .43 | .70 | .74 | .71 | 1.9 | .110 |

| DATE | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | POTAS- SIUM 40 TOTAL (PCI/L) | CARBON, ORGANIC TOTAL (MG/L AS C) | CARBON, ORGANIC DIS- SOLVED (MG/L AS C) | CARBON, ORGANIC SUS- PENDED (MG/L AS C) | PHYTO- PLANK- TON, TOTAL (CELLS PER ML) | PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M | PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M | CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) | CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) | BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 17... | .010 | -- | -- | 6.6 | 1.5 | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 16... | .020 | -- | 7.4 | -- | -- | 620 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 07... | .130 | -- | 1.5 | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 08... | .010 | -- | 2.3 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 05... | .060 | -- | -- | 3.5 | 1.3 | 990 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 03... | .020 | -- | 3.7 | -- | -- | -- | .310 | .240 | .110 | .000 | 636 |
| MAY | | | | | | | | | | | |
| 07... | .030 | -- | 13 | -- | -- | 3300 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 04... | .020 | -- | -- | 6.5 | .6 | 360 | .394 | .315 | .000 | .000 | -- |
| JUL | | | | | | | | | | | |
| 08... | .030 | -- | 7.6 | -- | -- | 520 | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 06... | .030 | 3.4 | -- | 5.0 | -- | -- | 125 | 121 | 28.7 | .730 | 139 |
| SEP | | | | | | | | | | | |
| 03... | .020 | -- | 4.2 | -- | -- | 1600 | -- | -- | -- | -- | -- |

E ESTIMATED.

## 09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE

### WATER-QUALITY DATA. WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | ARSENIC TOTAL (UG/L AS AS) | ARSENIC DIS-SOLVED (UG/L AS AS) | BARIUM. TOTAL RECOV-ERABLE (UG/L AS 3A) | BARIUM. DIS-SOLVED (UG/L AS BA) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CADMIUM DIS-SOLVED (UG/L AS CD) | CHRO-MIUM. TOTAL RECOV-ERABLE (UG/L AS CR) | CHRO-MIUM. DIS-SOLVED (UG/L AS CR) |
|---|---|---|---|---|---|---|---|---|---|
| OCT<br>17... | 0800 | 1 | 1 | 0 | 50 | 2 | 14 | 10 | 10 |
| MAR<br>05... | 0930 | 2 | 1 | 200 | 60 | 2 | <1 | 0 | 0 |
| APR<br>03... | 1130 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY<br>07... | 1200 | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN<br>04... | 1130 | 2 | 1 | 100 | 50 | 1 | 2 | 0 | 0 |
| JUL<br>08... | 0800 | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG<br>06... | 1100 | 3 | 1 | 100 | 70 | 1 | 3 | 10 | 20 |
| SEP<br>03... | 1130 | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | COBALT. TOTAL RECOV-ERABLE (UG/L AS CO) | COBALT. DIS-SOLVED (UG/L AS CO) | COPPER. TOTAL RECOV-ERABLE (UG/L AS CU) | COPPER. DIS-SOLVED (UG/L AS CU) | IRON. TOTAL RECOV-ERABLE (UG/L AS FE) | IRON. DIS-SOLVED (UG/L AS FE) | LEAD. TOTAL RECOV-ERABLE (UG/L AS PB) | LEAD. DIS-SOLVED (UG/L AS PB) | MANGA-NESE. TOTAL RECOV-ERABLE (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|
| OCT<br>17... | 0 | <3 | 5 | 3 | 1200 | 100 | 25 | 100 | 50 |
| MAR<br>05... | 0 | <3 | 14 | 0 | 1200 | <10 | 17 | 0 | 60 |
| APR<br>03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY<br>07... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN<br>04... | 1 | <3 | 10 | 2 | 2500 | 30 | 12 | 10 | 70 |
| JUL<br>08... | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG<br>06... | 3 | <3 | 11 | 7 | 1300 | 40 | 17 | 9 | 70 |
| SEP<br>03... | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | MANGA-NESE. DIS-SOLVED (UG/L AS MN) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MERCURY DIS-SOLVED (UG/L AS HG) | SELE-NIUM. TOTAL (UG/L AS SE) | SELE-NIUM. DIS-SOLVED (UG/L AS SE) | SILVER. TOTAL RECOV-ERABLE (UG/L AS AG) | SILVER. DIS-SOLVED (UG/L AS AG) | ZINC. TOTAL RECOV-ERABLE (UG/L AS ZN) | ZINC. DIS-SOLVED (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|
| OCT<br>17... | 30 | .1 | .0 | 9 | 8 | 0 | 0 | 20 | 9 |
| MAR<br>05... | 10 | .0 | .0 | 5 | 5 | 0 | 0 | 30 | <3 |
| APR<br>03... | -- | -- | -- | -- | -- | 0 | -- | -- | -- |
| MAY<br>07... | -- | -- | -- | -- | -- | 0 | -- | -- | -- |
| JUN<br>04... | 4 | .1 | .0 | 2 | 2 | 0 | 0 | 40 | 20 |
| JUL<br>08... | -- | -- | -- | -- | -- | 4 | -- | -- | -- |
| AUG<br>06... | 5 | .0 | .0 | 11 | 11 | 1 | 0 | 30 | 6 |
| SEP<br>03... | -- | -- | -- | -- | -- | 0 | -- | -- | -- |

## 09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE

### SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DATE | TIME | STREAM-FLOW, INSTAN-TANEOUS (CFS) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .062 MM | SED. SUSP. FALL DIAM. % FINER THAN .125 MM | SED. SUSP. FALL DIAM. % FINER THAN .250 MM | SED. SUSP. FALL DIAM. % FINER THAN .500 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | |
| 08... | 1320 | 4110 | 15 | 166 | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 05... | 1130 | 3910 | 136 | 1440 | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 03... | 1300 | 4940 | 104 | 1390 | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 04... | 1230 | 20700 | 497 | 27800 | 24 | 31 | 39 | 60 | 75 | 96 | 100 |
| 16... | 1115 | 25400 | 417 | 28600 | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | |
| 02... | 1245 | 13600 | 5070 | 186000 | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 05... | 1030 | 2780 | 100 | 751 | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 03... | 1230 | 3440 | 147 | 1370 | -- | -- | -- | -- | -- | -- | -- |

### SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | 1330 | 1110 | 940 | 955 | 1010 | 982 | 467 | 350 | 530 | 1160 | 1330 |
| 2 | --- | 1320 | 1080 | 950 | 961 | 1000 | 987 | 484 | 345 | 534 | 1190 | 1350 |
| 3 | --- | 1330 | 1060 | 960 | 939 | 995 | 975 | 489 | 423 | 545 | 1210 | 1380 |
| 4 | --- | 1280 | 1030 | 980 | 977 | 985 | 935 | 489 | 539 | 556 | 1230 | 1350 |
| 5 | --- | 1290 | 985 | 980 | 978 | 987 | 932 | 484 | 423 | 571 | 1250 | 1370 |
| 6 | --- | 1380 | 956 | 990 | 954 | 995 | 871 | 477 | 435 | 593 | 1270 | 1410 |
| 7 | --- | 1430 | 938 | 990 | 950 | 990 | 831 | 482 | 437 | 609 | 1240 | 1410 |
| 8 | --- | 1440 | 921 | 1000 | 956 | 979 | 807 | 400 | 405 | 622 | 1130 | 1410 |
| 9 | --- | 1440 | 887 | 1000 | 975 | 970 | 791 | 401 | 382 | 634 | 1150 | 1420 |
| 10 | --- | 1380 | 897 | 1000 | 981 | 956 | 787 | 394 | 453 | 666 | 1170 | 1440 |
| 11 | --- | 1300 | 900 | 990 | 967 | 946 | 569 | 393 | 347 | 688 | 1200 | 1490 |
| 12 | --- | 1320 | 934 | 990 | 958 | 940 | 501 | 401 | 305 | 730 | 1220 | 1430 |
| 13 | --- | 1300 | 910 | 980 | 974 | 944 | 465 | 403 | 368 | 759 | 1260 | 1390 |
| 14 | --- | 1300 | 922 | 970 | 995 | 942 | 446 | 412 | 358 | 792 | 1270 | 1350 |
| 15 | --- | 1360 | 919 | 990 | 1020 | 936 | 440 | 420 | 336 | 817 | 1280 | 1290 |
| 16 | --- | 1330 | 932 | 990 | 1020 | 922 | 434 | 432 | 358 | 846 | 1270 | 1180 |
| 17 | --- | 1300 | 1000 | 995 | 977 | 913 | 426 | 440 | 370 | 876 | 1260 | 1200 |
| 18 | --- | 1280 | 1020 | 1000 | 976 | 892 | 423 | 442 | 390 | 908 | 1250 | 1200 |
| 19 | --- | 1260 | 980 | 995 | 986 | 884 | 567 | 438 | 390 | 942 | 1260 | 1180 |
| 20 | --- | 1240 | 947 | 990 | 999 | 893 | 659 | 439 | 400 | 977 | 1260 | 1160 |
| 21 | --- | 1230 | 927 | 980 | 1020 | 908 | 472 | 427 | 420 | 1010 | 1250 | 1160 |
| 22 | --- | 1220 | 946 | 985 | 1040 | 922 | 358 | 401 | 420 | 1030 | 1270 | 1160 |
| 23 | --- | 1220 | 935 | 975 | 1050 | 925 | 348 | 373 | 430 | 985 | 1290 | 1160 |
| 24 | --- | 1230 | 936 | 970 | 1050 | 930 | 451 | 350 | 438 | 929 | 1350 | 1160 |
| 25 | --- | 1210 | 922 | 960 | 1040 | 939 | 428 | 338 | 468 | 940 | 1290 | 1160 |
| 26 | --- | 1230 | 899 | 965 | 1030 | 944 | 319 | 346 | 494 | 949 | 1310 | 1160 |
| 27 | --- | 1210 | 907 | 970 | 1030 | 949 | 318 | 353 | 508 | 968 | 1310 | 1180 |
| 28 | --- | 1180 | 910 | 960 | 1020 | 955 | 311 | 358 | 517 | 995 | 1240 | 1200 |
| 29 | 1350 | 1160 | 910 | 965 | 1020 | 964 | 312 | 351 | 521 | 1030 | 1220 | 1230 |
| 30 | 1340 | 1140 | 920 | 950 | --- | 973 | 386 | 347 | 526 | 1120 | 1250 | 1260 |
| 31 | 1330 | --- | 920 | 955 | --- | 978 | --- | 355 | --- | 1140 | 1290 | --- |

### 09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE

### TEMPERATURE. WATER (DEG. C). WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | 7.0 | 6.0 | --- | --- | | | --- | --- | 9.0 | 8.0 |
| 2 | --- | --- | 6.5 | 5.5 | --- | --- | | | 5.0 | 3.5 | 8.5 | 7.5 |
| 3 | --- | --- | 6.5 | 5.5 | --- | --- | | | 5.0 | 4.0 | 8.0 | 7.5 |
| 4 | --- | --- | 6.5 | 5.5 | 1.0 | 1.0 | | | 6.5 | 4.5 | 8.0 | 7.0 |
| 5 | --- | --- | 7.5 | 6.0 | 1.5 | 1.0 | | | 6.5 | 5.5 | 7.5 | 7.0 |
| 6 | --- | --- | 7.5 | 6.5 | 2.0 | 1.0 | | | 7.0 | 6.0 | 7.5 | 7.0 |
| 7 | --- | --- | 7.0 | 7.0 | 2.0 | 1.5 | | | 6.5 | 5.5 | 7.0 | 6.5 |
| 8 | --- | --- | 8.0 | 7.0 | 3.0 | 2.0 | | | 6.0 | 4.5 | 8.0 | 6.5 |
| 9 | --- | --- | 8.5 | 8.0 | 3.0 | 2.5 | | | 5.0 | 4.0 | 8.0 | 6.5 |
| 10 | --- | --- | 8.5 | 7.5 | 3.5 | 2.5 | | | 5.0 | 3.5 | 9.0 | 7.0 |
| 11 | --- | --- | 8.0 | 7.0 | 4.0 | 3.0 | | | 5.0 | 3.5 | 8.0 | 7.5 |
| 12 | --- | --- | 7.5 | 6.5 | 3.0 | 1.5 | | | 5.0 | 3.5 | 8.5 | 7.0 |
| 13 | --- | --- | 6.5 | 5.5 | 1.5 | 1.0 | | | 5.5 | 4.0 | 8.0 | 6.5 |
| 14 | --- | --- | 6.5 | 5.5 | 1.0 | 1.0 | | | 6.5 | 5.5 | 9.0 | 7.5 |
| 15 | --- | --- | 6.0 | 5.0 | 1.0 | 1.0 | | | 7.5 | 6.0 | 9.5 | 8.0 |
| 16 | --- | --- | 5.5 | 4.5 | 1.5 | 1.0 | | | 8.0 | 6.5 | 9.5 | 8.0 |
| 17 | --- | --- | 5.0 | 4.5 | 1.5 | 1.0 | | | 8.0 | 7.5 | 8.0 | 6.5 |
| 18 | --- | --- | 5.5 | 4.5 | 2.0 | 1.0 | | | 8.5 | 8.0 | 8.5 | 6.5 |
| 19 | --- | --- | 5.5 | 4.0 | 2.0 | 1.0 | | | 9.0 | 8.0 | 10.0 | 7.5 |
| 20 | --- | --- | 4.5 | 4.0 | 2.0 | 1.0 | | | 8.5 | 8.0 | 10.5 | 8.0 |
| 21 | --- | --- | 4.5 | 4.0 | 2.0 | 1.0 | | | 8.5 | 7.5 | 11.0 | 9.0 |
| 22 | --- | --- | 4.0 | 2.5 | 3.0 | 1.5 | | | 8.5 | 7.0 | 9.5 | 8.5 |
| 23 | --- | --- | 3.0 | 1.5 | 2.5 | 2.0 | | | 8.5 | 7.5 | 10.0 | 8.5 |
| 24 | --- | --- | 2.0 | 1.5 | 3.0 | 2.0 | | | 8.0 | 6.5 | 10.0 | 8.5 |
| 25 | --- | --- | 2.0 | 1.0 | 2.0 | 1.5 | | | 7.5 | 6.5 | 9.0 | 7.5 |
| 26 | --- | --- | 2.0 | 1.5 | 1.5 | 1.0 | | | 8.0 | 6.5 | 10.0 | 7.0 |
| 27 | --- | --- | 2.0 | 1.5 | 2.5 | 1.5 | | | 8.5 | 7.0 | 10.0 | 8.0 |
| 28 | --- | --- | --- | --- | --- | --- | | | 8.5 | 7.5 | 10.0 | 8.5 |
| 29 | 11.5 | 9.5 | --- | --- | --- | --- | | | 9.5 | 8.5 | 10.0 | 8.5 |
| 30 | 9.5 | 8.5 | --- | --- | --- | --- | | | --- | --- | 9.0 | 7.0 |
| 31 | 8.0 | 7.0 | --- | --- | --- | --- | | | --- | --- | 9.0 | 7.0 |

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 8.5 | 7.0 | 14.0 | 12.5 | 14.5 | 12.5 | 22.0 | 20.0 | 28.0 | 25.5 | 21.5 | 19.5 |
| 2 | 9.0 | 7.5 | 14.5 | 11.5 | 13.5 | 11.0 | 21.5 | 20.0 | 28.0 | 25.5 | 21.5 | 19.5 |
| 3 | 10.0 | 7.5 | 15.0 | 12.5 | 13.5 | 10.5 | 22.0 | 20.0 | 27.5 | 25.5 | 22.0 | 20.0 |
| 4 | 11.0 | 8.5 | 14.5 | 13.0 | 16.0 | 14.5 | 22.0 | 20.0 | 26.0 | 24.5 | 23.0 | 20.5 |
| 5 | 13.0 | 10.5 | 15.0 | 13.0 | 16.0 | 14.5 | 22.0 | 20.0 | 26.5 | 24.0 | 23.0 | 21.0 |
| 6 | 12.5 | 11.0 | 15.0 | 13.5 | 16.0 | 14.5 | 21.5 | 19.5 | 26.0 | 24.0 | 23.5 | 21.5 |
| 7 | 12.0 | 10.0 | 14.5 | 13.5 | 15.5 | 14.5 | 21.5 | 20.0 | 26.5 | 24.0 | 23.5 | 22.0 |
| 8 | 11.0 | 9.0 | 14.0 | 12.0 | 15.5 | 14.0 | 22.0 | 19.5 | 26.5 | 24.5 | 23.0 | 21.5 |
| 9 | 11.5 | 9.5 | 14.0 | 12.5 | 16.5 | 14.5 | 24.0 | 21.0 | 27.0 | 24.5 | 22.0 | 21.5 |
| 10 | 13.0 | 10.5 | 13.5 | 12.0 | --- | --- | 24.0 | 22.0 | 27.5 | 24.5 | 21.5 | 20.0 |
| 11 | 11.0 | 9.0 | 13.0 | 11.5 | --- | --- | 24.5 | 22.0 | 26.5 | 24.5 | 21.0 | 19.0 |
| 12 | 11.0 | 9.0 | 11.5 | 11.0 | --- | --- | 24.5 | 23.0 | 26.5 | 23.5 | 21.5 | 19.5 |
| 13 | 11.5 | 9.5 | 12.0 | 10.0 | --- | --- | 24.0 | 22.0 | 26.5 | 24.0 | 21.5 | 20.0 |
| 14 | 13.0 | 10.0 | 13.5 | 11.0 | --- | --- | 23.5 | 21.5 | 26.0 | 24.0 | 20.5 | 19.5 |
| 15 | 15.0 | 11.5 | 13.5 | 11.0 | --- | --- | 24.0 | 21.5 | 26.0 | 23.5 | 20.5 | 19.0 |
| 16 | 15.0 | 12.5 | 14.5 | 11.5 | --- | --- | 24.5 | 22.5 | 24.5 | 23.0 | 21.5 | 19.5 |
| 17 | 15.0 | 13.0 | 14.5 | 12.5 | --- | --- | 24.5 | 23.0 | 24.5 | 22.5 | 21.0 | 19.0 |
| 18 | 15.0 | 13.0 | 14.5 | 12.0 | --- | --- | 25.0 | 23.5 | 24.0 | 22.0 | 21.0 | 19.0 |
| 19 | 16.0 | 13.5 | 15.5 | 12.5 | --- | --- | 25.0 | 24.0 | 23.0 | 21.5 | 20.5 | 19.0 |
| 20 | 16.0 | 14.5 | 16.5 | 14.0 | --- | --- | 26.0 | 24.0 | 22.5 | 21.0 | 20.5 | 19.0 |
| 21 | 15.5 | 14.0 | 17.0 | 14.5 | --- | --- | 26.5 | 24.5 | 23.0 | 20.0 | 20.0 | 18.5 |
| 22 | 14.5 | 13.5 | 16.5 | 14.5 | --- | --- | 26.5 | 24.5 | 23.0 | 20.5 | 19.5 | 17.5 |
| 23 | 14.5 | 13.0 | 15.5 | 14.5 | --- | --- | 26.5 | 25.0 | 24.0 | 21.5 | 18.5 | 17.0 |
| 24 | 13.5 | 12.0 | 15.0 | 13.5 | --- | --- | 26.5 | 24.5 | 22.5 | 21.5 | 18.0 | 16.0 |
| 25 | 13.5 | 11.0 | 13.5 | 12.0 | 19.5 | 17.5 | 26.0 | 24.5 | 23.0 | 21.5 | 18.0 | 16.0 |
| 26 | 14.5 | 11.5 | 13.5 | 11.0 | 20.0 | 18.0 | 25.5 | 23.5 | 22.5 | 20.0 | 18.0 | 16.0 |
| 27 | 14.5 | 12.5 | 14.0 | 11.5 | 20.0 | 19.0 | 26.5 | 23.5 | 23.5 | 21.5 | 19.0 | 16.5 |
| 28 | 15.0 | 13.0 | 15.0 | 12.5 | 20.0 | 18.5 | 26.5 | 24.5 | 23.0 | 21.5 | 19.5 | 16.5 |
| 29 | 14.5 | 13.5 | 15.5 | 13.5 | 20.5 | 19.0 | 26.0 | 24.5 | 22.0 | 21.0 | 19.5 | 17.5 |
| 30 | 14.5 | 12.5 | 15.5 | 13.5 | 22.0 | 19.5 | 26.5 | 24.0 | 22.0 | 20.0 | 19.5 | 17.5 |
| 31 | --- | --- | 15.0 | 13.5 | --- | --- | 28.0 | 25.0 | 20.5 | 19.5 | --- | --- |

COLORADO RIVER MAIN STEM

09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

| DATE<br>TIME | NOV 16,79<br>0940 | MAR 5,80<br>0930 | MAY 7,80<br>1200 | JUN 4,80<br>1130 |
|---|---|---|---|---|
| TOTAL CELLS/ML | 620 | 990 | 3300 | 360 |
| DIVERSITY: DIVISION | 1.0 | 0.2 | 0.5 | 1.6 |
| .CLASS | 1.0 | 0.2 | 0.5 | 1.6 |
| ..ORDER | 1.5 | 0.0 | 0.6 | 1.9 |
| ...FAMILY | 2.3 | 0.0 | 2.7 | 2.1 |
| ....GENUS | 2.4 | 0.0 | 3.0 | 2.4 |

| ORGANISM | CELLS /ML | PER-CENT | CELLS /ML | PER-CENT | CELLS /ML | PER-CENT | CELLS /ML | PER-CENT |
|---|---|---|---|---|---|---|---|---|
| CHLOROPHYTA (GREEN ALGAE) | | | | | | | | |
| .CHLOROPHYCEAE | | | | | | | | |
| ..CHLOROCOCCALES | | | | | | | | |
| ...CHARACIACEAE | | | | | | | | |
| ....SCHROEDERIA | 14 | 2 | -- | - | -- | - | -- | - |
| ...COELASTRACEAE | | | | | | | | |
| ....COELASTRUM | -- | - | -- | - | -- | - | -- | - |
| ...OOCYSTACEAE | | | | | | | | |
| ....ANKISTRODESMUS | 14 | 2 | -- | - | -- | - | -- | - |
| ....CHLORELLA | -- | - | -- | - | -- | - | 13 | 4 |
| ....OOCYSTIS | -- | - | -- | - | -- | - | -- | - |
| ....SELENASTRUM | -- | - | -- | - | -- | - | -- | - |
| ...SCENEDESMACEAE | | | | | | | | |
| ....CRUCIGENIA | -- | - | -- | - | -- | - | -- | - |
| ....SCENEDESMUS | 58 | 9 | -- | - | -- | - | 52 | 14 |
| ....TETRASTRUM | -- | - | -- | - | -- | - | -- | - |
| ..VOLVOCALES | | | | | | | | |
| ...CHLAMYDOMONADACEAE | | | | | | | | |
| ....CHLAMYDOMONAS | -- | - | 9 | 1 | -- | - | 26 | 7 |
| CHRYSOPHYTA | | | | | | | | |
| .BACILLARIOPHYCEAE | | | | | | | | |
| ..CENTRALES | | | | | | | | |
| ...COSCINODISCACEAE | | | | | | | | |
| ....CYCLOTELLA | 43 | 7 | -- | - | 22 | 1 | 65[3] | 18 |
| ....MELOSIRA | 29 | 5 | -- | - | 22 | 1 | -- | - |
| ....STEPHANODISCUS | -- | - | -- | - | -- | - | 65[3] | 18 |
| ..PENNALES | | | | | | | | |
| ...ACHNANTHACEAE | | | | | | | | |
| ....COCCONEIS | -- | - | -- | - | 22 | 1 | -- | - |
| ....RHOICOSPHENIA | 14 | 2 | 38 | 4 | 270 | 8 | -- | - |
| ...CYMBELLACEAE | | | | | | | | |
| ....CYMBELLA | 58 | 9 | 140 | 14 | 380 | 11 | -- | - |
| ...DIATOMACEAE | | | | | | | | |
| ....DIATOMA | -- | - | -- | - | 160 | 5 | -- | - |
| ...FRAGILARIACEAE | | | | | | | | |
| ....ASTERIONELLA | 14 | 2 | -- | - | 22 | 1 | -- | - |
| ....FRAGILARIA | -- | - | -- | - | 450 | 13 | -- | - |
| ....HANNAEA | -- | - | -- | - | 22 | 1 | -- | - |
| ....SYNEDRA | -- | - | 28 | 3 | 67 | 2 | -- | - |
| ...GOMPHONEMATACEAE | | | | | | | | |
| ....GOMPHONEMA | -- | - | 85 | 9 | 270 | 8 | -- | - |
| ...NAVICULACEAE | | | | | | | | |
| ....NAVICULA | 320[3] | 51 | 590[3] | 60 | 1200[3] | 36 | 13 | 4 |
| ...NITZSCHIACEAE | | | | | | | | |
| ....NITZSCHIA | -- | - | 66 | 7 | 67 | 2 | -- | - |
| ...SURIRELLACEAE | | | | | | | | |
| ....SURIRELLA | -- | - | 9 | 1 | 45 | 1 | -- | - |
| CRYPTOPHYTA (CRYPTOMONADS) | | | | | | | | |
| .CRYPTOPHYCEAE | -- | - | 9 | 1 | -- | - | -- | - |
| ..CRYPTOMONADALES | | | | | | | | |
| ...CRYPTOCHRYSIDACEAE | | | | | | | | |
| ....CHROOMONAS | -- | - | -- | - | -- | - | -- | - |
| ...CRYPTOMONADACEAE | | | | | | | | |
| ....CRYPTOMONAS | -- | - | -- | - | -- | - | -- | - |
| CYANOPHYTA (BLUE-GREEN ALGAE) | | | | | | | | |
| .CYANOPHYCEAE | | | | | | | | |
| ..CHROOCOCCALES | | | | | | | | |
| ...CHROOCOCCACEAE | | | | | | | | |
| ....ANACYSTIS | 58 | 9 | -- | - | -- | - | -- | - |
| ..HORMOGONALES | | | | | | | | |
| ...NOSTOCACEAE | | | | | | | | |
| ....ANABAENA | -- | - | -- | - | -- | - | 130[3] | 36 |
| ...OSCILLATORIACEAE | | | | | | | | |
| ....OSCILLATORIA | -- | - | -- | - | 340 | 10 | -- | - |
| EUGLENOPHYTA (EUGLENOIDS) | | | | | | | | |
| .EUGLENOPHYCEAE | | | | | | | | |
| ..EUGLENALES | | | | | | | | |
| ...EUGLENACEAE | | | | | | | | |
| ....EUGLENA | -- | - | 9 | 1 | -- | - | -- | - |

NOTE: [3] - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## COLORADO RIVER MAIN STEM

### 09163500 COLORADO RIVER BELOW COLORADO-UTAH STATE LINE

### PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

| | | | |
|---|---|---|---|
| DATE | JUL 8,80 | AUG 6,80 | SEP 3,80 |
| TIME | 0800 | 0000 | 1130 |
| TOTAL CELLS/ML | 520 | 6500 | 1600 |
| DIVERSITY: DIVISION | 0.7 | 1.5 | 1.1 |
| .CLASS | 0.7 | 1.5 | 1.1 |
| ..ORDER | 1.5 | 2.2 | 1.9 |
| ...FAMILY | 1.8 | 3.0 | 2.8 |
| ....GENUS | 2.4 | 3.3 | 2.9 |

| ORGANISM | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT | CELLS /ML | PER- CENT |
|---|---|---|---|---|---|---|
| CHLOROPHYTA (GREEN ALGAE) | | | | | | |
| .CHLOROPHYCEAE | | | | | | |
| ..CHLOROCOCCALES | | | | | | |
| ...CHARACIACEAE | | | | | | |
| ....SCHROEDERIA | -- | - | -- | - | -- | - |
| ...COELASTRACEAE | | | | | | |
| ....COELASTRUM | -- | - | 740 | 11 | 150 | 10 |
| ...OOCYSTACEAE | | | | | | |
| ....ANKISTRODESMUS | -- | - | 640 | 10 | 13 | 1 |
| ....CHLORELLA | -- | - | -- | - | -- | - |
| ....OOCYSTIS | -- | - | 130 | 2 | 26 | 2 |
| ....SELENASTRUM | 13 | 2 | -- | - | 26 | 2 |
| ...SCENEDESMACEAE | | | | | | |
| ....CRUCIGENIA | -- | - | 130 | 2 | -- | - |
| ....SCENEDESMUS | 52 | 10 | 740 | 11 | 410[3] | 26 |
| ....TETRASTRUM | -- | - | 130 | 2 | -- | - |
| ..VOLVOCALES | | | | | | |
| ...CHLAMYDOMONADACEAE | | | | | | |
| ....CHLAMYDOMONAS | 26 | 5 | 330 | 5 | 180 | 11 |
| CHRYSOPHYTA | | | | | | |
| .BACILLARIOPHYCEAE | | | | | | |
| ..CENTRALES | | | | | | |
| ...COSCINODISCACEAE | | | | | | |
| ....CYCLOTELLA | 180[3] | 35 | 1800[3] | 27 | 140 | 9 |
| ....MELOSIRA | 140[3] | 27 | -- | - | 26 | 2 |
| ....STEPHANODISCUS | -- | - | -- | - | -- | - |
| ..PENNALES | | | | | | |
| ...ACHNANTHACEAE | | | | | | |
| ....COCCONEIS | 13 | 2 | -- | - | -- | - |
| ....RHOICOSPHENIA | -- | - | 33 | 1 | -- | - |
| ...CYMBELLACEAE | | | | | | |
| ....CYMBELLA | -- | - | -- | - | 26 | 2 |
| ...DIATOMACEAE | | | | | | |
| ....DIATOMA | -- | - | -- | - | -- | - |
| ...FRAGILARIACEAE | | | | | | |
| ....ASTERIONELLA | -- | - | -- | - | -- | - |
| ....FRAGILARIA | -- | - | -- | - | -- | - |
| ....HANNAEA | -- | - | -- | - | -- | - |
| ....SYNEDRA | 13 | 2 | 33 | 1 | -- | - |
| ...GOMPHONEMATACEAE | | | | | | |
| ....GOMPHONEMA | -- | - | 33 | 1 | -- | - |
| ...NAVICULACEAE | | | | | | |
| ....NAVICULA | -- | - | 170 | 3 | 140 | 9 |
| ...NITZSCHIACEAE | | | | | | |
| ....NITZSCHIA | 77 | 15 | 870 | 13 | 400[3] | 25 |
| ...SURIRELLACEAE | | | | | | |
| ....SURIRELLA | -- | - | -- | - | -- | - |
| CRYPTOPHYTA (CRYPTOMONADS) | | | | | | |
| .CRYPTOPHYCEAE | -- | - | -- | - | -- | - |
| ..CRYPTOMONADALES | | | | | | |
| ...CRYPTOCHRYSIDACEAE | | | | | | |
| ....CHROOMONAS | -- | - | 130 | 2 | -- | - |
| ...CRYPTOMONADACEAE | | | | | | |
| ....CRYPTOMONAS | -- | - | 100 | 2 | 13 | 1 |
| CYANOPHYTA (BLUE-GREEN ALGAE) | | | | | | |
| .CYANOPHYCEAE | | | | | | |
| ..CHROOCOCCALES | | | | | | |
| ...CHROOCOCCACEAE | | | | | | |
| ....ANACYSTIS | -- | - | -- | - | -- | - |
| ..HORMOGONALES | | | | | | |
| ...NOSTOCACEAE | | | | | | |
| ....ANABAENA | -- | - | -- | - | -- | - |
| ...OSCILLATORIACEAE | | | | | | |
| ....OSCILLATORIA | -- | - | 470 | 7 | -- | - |
| EUGLENOPHYTA (EUGLENOIDS) | | | | | | |
| .EUGLENOPHYCEAE | | | | | | |
| ..EUGLENALES | | | | | | |
| ...EUGLENACEAE | | | | | | |
| ....EUGLENA | -- | - | 33 | 1 | 13 | 1 |

NOTE: [3] - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO

There are 24 tunnels or ditches, all of which are equipped with water-stage recorders and Parshall flumes or sharp-crested weirs. Records furnished by Colorado Division of Water Resources. The locations of these diversions are given in the following list.

09010000 Grand River ditch diverts water from tributaries of Colorado River to La Poudre Pass Creek (tributary to Cache la Poudre River) in NW¼ sec.21, T.6 N., R.75 W., in Platte River basin. Two collection ditches beginning at headgates located in sec.26, T.5 N., R.76 W., and sec.29, T.6 N., R.75 W., intercept all tributaries upstream on each side of the Colorado River and converge at La Poudre Pass.

REVISIONS (WATER YEARS).--WSP 1313: 1912-27.

09012000 Eureka ditch diverts water from tributaries of Tonahutu Creek between headgate in sec.7, T.4 N., R.74 W., and Sprague Pass, in Colorado River basin, to Spruce Creek (tributary to Big Thompson River) in sec.16, T.4 N., R.74 W., in Platte River basin.

REVISIONS (WATER YEARS).--WSP 1313: 1949.

09013000 Alva B. Adams tunnel diverts water from Grand Lake and Shadow Mountain Lake in NW¼ sec.9, T.3 N., R.75 W., in Colorado River basin, to Lake Estes (Big Thompson River) in sec.30, T.5 N., R.72 W., in Platte River basin. For daily discharge, see elsewhere in this report.

09021500 Berthoud Pass ditch diverts water from tributaries of Fraser River between headgate in sec.33, T.2 S., R.75 W., and Berthoud Pass, in Colorado River basin, to Hoop Creek (tributary to West Fork Clear Creek) in sec.10, T.3 S., R.75 W., in Platte River basin.

09022500 Moffat water tunnel diverts water from tributaries of Williams Fork (via August P. Gumlick and Vasquez tunnels, beginning in 1959) between headgates (in secs.20 and 29, T.3 S., R.76 W.) and west portal of August P. Gumlick tunnel (in sec.28, T.3 S., R.76 W.) and from the main stem and tributaries of Fraser River between headgates (in sec.8, T.2 S., R.76 W., and sec.24, T.1 S., R.75 W.) and west portal of Moffat tunnel (in sec.11, T.2 S., R.75 W.), in Colorado River basin, to South Boulder Creek, in sec.2, T.2 S., R.74 W., in Platte River basin. (See sta. 09036000 for diversions by August P. Gumlick tunnel.)

09042000 Hoosier Pass tunnel diverts water from tributaries of Blue River in Colorado River basin to Montgomery Reservoir (Middle Fork South Platte River) in sec.14, T.8 S., R.78 W., in Platte River basin; this water is again diverted to South Catamount Creek (tributary to Catamount Creek) in SE¼ sec.14, T.13 S., R.69 W., in the Arkansas River basin. Collection conduits extending from the right bank of Crystal Creek (tributary to Spruce Creek) in sec.14, T.7 S., R.78 W., right bank of Spruce Creek in sec.23, T.7 S., R.78 W., right bank of McCullough Gulch in sec.26, T.7 S., R.78 W., right bank of Monte Cristo Creek in SW¼NE¼ sec.2, T.8 S., R.78 W., left bank of Bemrose Creek in SW¼SW¼ sec.6, T.8 S., R.77 W., and intercepting intermediate tributaries, transport diversions to north portal of the tunnel.

09046000 Boreas Pass ditch diverts water from tributaries of Blue River between headgate in sec.26, T.7 S., R.77 W., and Boreas Pass, in Colorado River basin, to Tarryall Creek in sec.26, T.7 S., R.77 W., in Platte River basin.

REVISIONS (WATER YEARS).--WSP 1733: 1958.

09047300 Vidler tunnel diverts water from tributaries of Peru Creek (tributary to Snake River) in sec.9, T.5 S., R.75 W., in Blue River basin, to Leavenworth Creek (tributary to South Clear Creek) in sec.10, T.5 S., R.75 W., in Platte River basin.

09050590 Harold D. Roberts tunnel diverts water from Dillon Reservoir (Blue River) in sec.18, T.5 S., R.77 W., in Blue River basin, to North Fork South Platte River (tributary to South Platte River) in SW¼SW¼ sec.4, T.7 S., R.74 W., in Platte River basin. Figures include a small amount of ground-water inflow between Dillon Reservoir and east portal of tunnel.

09061500 Columbine ditch diverts water from tributaries of Eagle River in sec.5, T.8 S., R.79 W., in Colorado River basin to Chalk Creek (tributary to East Fork Arkansas River) in NW¼ sec.9, T.8 S., R.79 W., in Arkansas River basin.

09062000 Ewing ditch diverts water from Piney Creek in sec.11, T.8 S., R.80 W., in Eagle River basin, to Thayer Gulch (tributary to Tennessee Creek) in sec.11, T.8 S., R.80 W., in Arkansas River basin.

## TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO--Continued

09062500 Wurtz ditch diverts water from tributaries of Eagle River between headgate in sec.32, T.7 S., R.80 W., and Tennessee Pass, in Colorado River basin, to West Tennessee Creek (tributary to Tennessee Creek) in sec.17, T.8 S., R.80 W., in Arkansas River basin.

09063700 Homestake tunnel diverts water from Homestake Lake (Middle Fork Homestake Creek), in sec.17, T.8 S., R.81 W., in Eagle River basin, to Lake Fork in sec.9, T.9 S., R.81 W., in Arkansas River basin. Water is imported to Homestake Lake from tributaries of Homestake Creek by collection conduits that extend from right bank of French Creek in sec.28, T.7 S., R.81 W., and left bank of East Fork Homestake Creek in sec.9, T.8 S., R.81 W., and intercept intermediate tributaries.

09073000 Twin Lakes tunnel diverts water from tributaries of Roaring Fork River between headgates (in sec.21, T.11 S., R.83 W., and sec.2, T.11 S., R.83 W.), and west portal of Twin Lakes tunnel (in sec.24, T.11 S., R.83 W), in Colorado River basin, to North Fork Lake Creek in sec.22, T.11 S., R.82 W., in Arkansas River basin.

09077160 Charles H. Boustead Tunnel diverts water from the main stem and tributaries of Fryingpan River (tributary to Roaring Fork River), in Colorado River basin, to Lake Fork in sec.10, T.9 S., R.81 W., in Arkansas River basin. Water is transported to west portal of tunnel (at lat 39°14'44", long 106°31'47"), by a series of collection conduits extending between headgates on right bank of Sawyer Creek at lat 39°15'58", long 106°38'19", and right bank of Fryingpan River at lat 39°14'40", long 106°31'49", and intercepting intermediate tributaries.

09077500 Busk-Ivanhoe tunnel diverts water from Ivanhoe Lake (Ivanhoe Creek), tributary to Fryingpan River in sec.13, T.9 S., R.82 W., in Roaring Fork River basin, to Busk Creek (tributary to Lake Fork) in sec.20, T.9 S., R.81 W., in Arkansas River basin.

09115000 Larkspur ditch diverts water from tributaries of Tomichi Creek between headgates (in sec.11, T.48 N., R.6 E., and sec.1, T.47 N., R.6 E.), and Marshall Pass, in Gunnison River basin, to Poncha Creek (tributary to South Arkansas River) in SE¼ sec.24, T.48 N., R.6 E., in Arkansas River basin.

09118200 Tarbell ditch diverts water from Lake Fork Cochetopa Creek (tributary to Cochetopa Creek), in NW¼ sec.18, T.43 N., R.2 E., in Gunnison River basin, to Lake Fork Saguache Creek (tributary to Middle Fork Saguache Creek) in NE¼ sec.13, T.43 N., R.2 E., in Rio Grande Basin. All records available prior to October 1960 published in WSP 1733.

REVISIONS (WATER YEARS).--WSP 1733: 1949-51.

09121000 Tabor ditch diverts water from tributaries of Cebolla Creek in secs.29 and 36, T.43 N., R.3 W., in Gunnison River basin, to Big Spring Creek (tributary to North Clear Creek) in sec.35, T.43 N., R.3 W., in Rio Grande basin.

09341000 Treasure Pass diversion ditch diverts water from tributaries of Wolf Creek between headgates (in sec.31, T.38 N., R.2 E., and sec.6, T.37 N., R.3 E.), and Wolf Creek Pass, in San Juan River basin, to tributary of South Fork Rio Grande in sec.31, T.38 N., R.2 E., in Rio Grande basin.

09347000 Don La Font ditches 1 and 2 divert water from tributaries of Piedra River between headgates in NW¼ sec.4, T.33 N., R.1 W., and SW¼ sec.33, T.39 N., R.1 W.), and Piedra Pass, in San Juan River basin, to South River in sec.4, T.38 N., R.1 W., in Rio Grande basin.

09348000 Williams Creek-Squaw Pass ditch diverts water from Williams Creek (tributary to Piedra River) in sec.13, T.39 N., R.3 W., in San Juan River basin, to Squaw Creek in sec.10, T.39 N., R.3 W., in Rio Grande basin.

09351000 Pine River-Weminuche Pass ditch diverts water from North Fork Los Pinos River (tributary to Los Pinos River) in sec.4, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec.33, T.40 N., R.4 W., in Rio Grande basin.

09351500 Weminuche Pass ditch diverts water from left bank of Rincon la Vaca Creek (tributary to Los Pinos River) in sec.5, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec.33, T.40 N., R.4 W., in Rio Grande basin.

## TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

| Diversion | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Water year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TO PLATTE RIVER BASIN | | | | | | | | | | | | | |
| 09010000 Grand River ditch... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5,530 | 6,360 | 1,150 | 286 | 13,330 |
| 09012000 Eureka ditch........ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09013000 Alva B. Adams tunnel | 12,580 | 12,830 | 14,750 | 17,800 | 19,980 | 18,340 | 8,600 | 4,860 | 1,940 | 12,190 | 19,060 | 14,520 | 157,400 |
| 09021500 Berthoud Pass ditch. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 253 | 402 | 89 | 32 | 777 |
| 09022500 Moffat water tunnel. | 2,630 | 910 | 712 | 637 | 474 | 459 | 514 | 3,140 | 9,490 | 11,830 | 5,350 | 3,110 | 39,260 |
| 09046000 Boreas Pass ditch... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 5.4 | 0 | 33 |
| 09047300 Vidler tunnel....... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 144 | 107 | 376 |
| 09050590 Harold D. Roberts tunnel........... | 3,980 | 6,300 | 4,860 | 4,890 | 4,370 | 1,760 | 0 | 0 | 0 | 666 | 13,810 | 11,330 | 51,940 |
| Total...................... | 19,190 | 20,040 | 20,320 | 23,330 | 24,820 | 20,560 | 9,110 | 8,000 | 17,210 | 31,520 | 39,610 | 29,380 | 263,120 |
| TO ARKANSAS RIVER BASIN | | | | | | | | | | | | | |
| 09042000 Hoosier Pass tunnel. | 205 | 0 | 0 | 0 | 0 | 0 | 0 | 177 | 1,700 | 1,570 | 2,050 | 0 | 5,700 |
| 09061500 Columbine ditch..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85 | 1,360 | 255 | 58 | 23 | 1,780 |
| 09062000 Ewing ditch......... | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 722 | 192 | 84 | 48 | 1,160 |
| 09062500 Wurtz ditch......... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 311 | 2,460 | 461 | 75 | 28 | 3,340 |
| 09063700 Homestake tunnel.... | 0 | 0 | 4,490 | 6,120 | 7,600 | 2,290 | 5,820 | 5,640 | 0 | 0 | 0 | 0 | 31,960 |
| 09073000 Twin Lakes tunnel... | 15 | 27 | 32 | 46 | 59 | 77 | 76 | 4,290 | 15,380 | 2,640 | 69 | 98 | 22,810 |
| 09077160 Charles H. Boustead Tunnel............ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6,180 | 39,400 | 9,810 | 0 | 0 | 55,390 |
| 09077500 Busk-Ivanhoe tunnel. | 23 | 10 | 0 | 0 | 0 | 0 | 0 | 296 | 4,580 | 949 | 54 | 38 | 5,950 |
| 09115000 Larkspur ditch...... | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 149 | 161 | 37 | 7.5 | 371 |
| Total...................... | 277 | 37 | 4,520 | 6,170 | 7,660 | 2,370 | 5,900 | 17,080 | 65,750 | 16,040 | 2,430 | 242 | 128,460 |
| TO RIO GRANDE BASIN | | | | | | | | | | | | | |
| 09118200 Tarbell ditch....... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 | 272 | 114 | 62 | 542 |
| 09121000 Tabor ditch......... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 558 | 192 | 72 | 59 | 894 |
| 09341000 Treasure Pass diversion ditch........ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 180 | 110 | 0 | 0 | 290 |
| 09347000 Don La Font ditches No. 1 and 2....... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 33 |
| 09348000 Williams Creek-Squaw Pass ditch........ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09351000 Pine River-Weminuche Pass ditch........ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 109 | 0 | 0 | 150 |
| 09351500 Weminuche Pass ditch | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,140 | 790 | 0 | 0 | 1,930 |
| Total...................... | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 2,010 | 1,510 | 186 | 121 | 3,840 |
| Grand Total................ | 19,470 | 20,080 | 24,840 | 29,500 | 32,480 | 22,930 | 15,010 | 25,090 | 84,970 | 49,070 | 42,230 | 31,920 | 395,420 |

NOTE: Due to method of computing water year figures and rounding procedures, totals do not agree.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations; the second is a table of annual maximum stage and discharge at crest-stage stations; and the third is a table containing discharge measurements made at miscellaneous sites for both low flow and high flow are given in a fourth table.

## LOW-FLOW PARTIAL-RECORD STATIONS

Measurements of streamflow in the area covered by this report made at low-flow, partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simulataneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

### DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1980

| Station no. | Station name | Location | Drainage area ($mi^2$) | Period of record | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| *09058900 | Moniger Creek near Minturn, CO | Lat 39°43'37", long 106°28'50", in Eagle County, on left bank 1.5 mi (2.4 km) upstream from mouth, 7.5 mi (12.1 km) north of Minturn. | 0.76 | 1965-80 | 10-04-79 | 0.01 |
| | | | | | 11-14-79 | 0.01 |
| | | | | | 6-10-80 | 6.82 |
| | | | | | 7-15-80 | 0.22 |
| | | | | | 8-27-80 | 0.07 |

*Also a crest-stage partial-record station.

## CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

### ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 198[illegible]

| Station number | Station name | Location | Total drainage area (mi²) | Non-contributing | Period of record | Annual maximum Date | Annual maximum Gage height (feet) | Annual maximum Discharge (ft³/s) |
|---|---|---|---|---|---|---|---|---|
| | | PINEY RIVER BASIN | | | | | | |
| *09058900 | Moniger Creek near Minturn, CO | Lat 39°43'37", long 106°28'50", in Eagle County, on left bank 1.5 mi (2.4 km) upstream from mouth, 7.5 mi (12.1 km) north of Minturn. | 0.76 | - | 1965-80 | (a) | 2.37 | (a) |
| | | COLORADO RIVER BASIN | | | | | | |
| 09061450 | Sweetwater Creek at mouth near Dotsero, CO | Lat 39°43²20", long 107°02'22", in NW¼NE¼ sec.9, T.4 S., R.86 W., Eagle County, 5.3 mi (8.5 km) north of Dotsero. | 105 | - | 1976,<br>1979-80 | 7-12-76<br>(a)<br>(a) | 18.60<br>9.65<br>9.84 | 7,390<br>97<br>129 |
| 09091100 | Mamm Creek near Silt, CO | Lat 39°31'54", long 107°42'48", in NW¼NW¼ sec.18, T.6 S., R.92 W., Garfield County, 3.3 mi (5.3 km) southeast of Silt. | 63.3 | - | 1979-80 | 1979<br>(a) | (a)<br>11.27 | (a)<br>157 |
| | | GUNNISON RIVER BASIN | | | | | | |
| 09149450 | Dry Creek near Olathe, CO | Lat 38°33'19", long 108°02'43", in SW¼NE¼ sec.36, T.50 N., R.11 W., Montrose County, 4.9 mi (7.9 km) southwest of Olathe. | 102 | - | 1979-80 | 1979<br>5-22-80 | (a)<br>4.55 | (a)<br>700 |
| 09151700 | Deer Creek tributary near Dominguez, CO | Lat 38°51'30", long 108°18'53", in NE¼ sec.36, T.3 S., R.2 E., Ute Meridian, Mesa County, at culvert at U.S. Highway 50, 4 mi (6 km) north of Dominguez. Discontinued 9-30-80. | b4.79 | b3.25 | 1971-80 | 8-25-80 | 10.37 | 29 |
| | | LITTLE SALT WASH BASIN | | | | | | |
| 09153200 | Little Salt Wash tributary near Fruita, CO | Lat 39°13'16", long 108°38'57", in NE¼NE¼ sec.25, T.2 N., R.2 W., Ute Meridian, Mesa County, 200 ft (61 m) below bridge on 21 Rd., 6 mi (10 km) northeast of Fruita. Discontinued 9-30-80. | b3.13 | b1.79 | 1971-80 | 1980 | c11.12 | 87 |
| | | SALT CREEK BASIN | | | | | | |
| 09163300 | East Salt Creek tributary near Mack, CO | Lat 39°21'28", long 108°48'49", in SW¼SE¼ sec.18, T.8 S., R.102 W., Mesa County, at culvert at State Highway 139, 10 mi (16 km) northeast of Mack. Discontinued 9-30-80. | b1.48 | b.38 | 1979-80 | 8-23-80 | 12.57 | 88 |

*Also a low-flow partial-record station.
a Not determined.
b Revised.
c From floodmark.

## DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1980

| Stream | Tributary to | Location | Date | Discharge ($ft^3/s$) | Degrees Celsius | Specific conductance |
|---|---|---|---|---|---|---|
| Myers Gulch near Sapinero- | Gunnison River | Lat 38°28'22", | 10-04-79 | 0.13 | ---- | --- |
| | | long 107°28'03" | 5-29-80 | 22.6 | 7.5 | 50 |
| | | | 6-11-80 | 10.8 | 11.0 | 50 |
| Mesa Creek near Sapinero-- | Gunnison River | Lat 38°28'45", | 10-04-79 | .03 | ---- | --- |
| | | long 107°30'55" | 5-29-80 | 64.1 | 4.0 | 50 |
| | | | 6-11-80 | 26.6 | 8.5 | 50 |
| Long Gulch near Maher----- | Gunnison River | Lat 38°29'08", | 10-04-79 | no flow | ---- | --- |
| | | long 107°32'24" | 5-29-80 | .60 | 4.5 | 55 |
| | | | 6-11-80 | 1.65 | 8.5 | 80 |
| Crystal Creek near Maher-- | Gunnison River | Lat 38°31'50", | 10-04-79 | no flow | ---- | --- |
| | | long 107°33'32" | 4-22-80 | 71.4 | ---- | --- |
| | | | 5-29-80 | 86.2 | 4.0 | 65 |
| | | | 6-11-80 | 139.0 | 7.0 | 65 |

09010500 - COLORADO R BELOW BAKER GULCH, NR GRAND LAKE, CO. (LAT 40 19 33 LONG 105 51 22)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 03... | 1200 | 85 | 8.0 | 20... | 1030 | 65 | 4.0 |
| NOV | | | | JUN | | | |
| 06... | 1005 | 90 | .0 | 10... | 0945 | 40 | 3.5 |
| DEC | | | | JUL | | | |
| 11... | 1200 | 75 | .0 | 09... | 1200 | 50 | 12.0 |
| JAN , 1980 | | | | AUG | | | |
| 23... | 1320 | 100 | .0 | 13... | 1015 | 75 | 13.5 |
| MAR | | | | SEP | | | |
| 05... | 1130 | 85 | .0 | 09... | 1445 | 70 | 13.0 |
| APR | | | | | | | |
| 15... | 1015 | 90 | .0 | | | | |

09011000 - COLORADO RIVER NEAR GRAND LAKE, CO. (LAT 40 13 08 LONG 105 51 25)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 03... | 1455 | 95 | 10.0 | 20... | 1310 | 55 | 8.0 |
| NOV | | | | JUN | | | |
| 06... | 1205 | 100 | 1.5 | 10... | 1320 | 40 | 7.5 |
| DEC | | | | JUL | | | |
| 11... | 1410 | 90 | .0 | 09... | 1240 | 55 | 14.5 |
| JAN , 1980 | | | | AUG | | | |
| 23... | 1125 | 120 | .0 | 13... | 1220 | 80 | 16.5 |
| MAR | | | | SEP | | | |
| 05... | 1240 | 95 | 2.0 | 09... | 1635 | 70 | 14.0 |
| APR | | | | | | | |
| 15... | 1230 | 90 | 5.0 | | | | |

09019000 - COLORADO RIVER BELOW LAKE GRANBY, CO. (LAT 40 08 39 LONG 105 52 00)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 03... | 1700 | 70 | 8.0 | 20... | 1440 | 60 | 5.5 |
| NOV | | | | JUN | | | |
| 06... | 1415 | 70 | 7.5 | 10... | 1520 | 65 | 7.0 |
| JAN , 1980 | | | | JUL | | | |
| 23... | 0940 | 80 | 3.0 | 09... | 1430 | 60 | 8.0 |
| MAR | | | | SEP | | | |
| 05... | 1400 | 60 | 4.0 | 10... | 0910 | 60 | 16.0 |
| APR | | | | | | | |
| 15... | 1420 | 60 | 4.5 | | | | |

09019500 - COLORADO RIVER NEAR GRANBY, CO. (LAT 40 07 15 LONG 105 54 00)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | JUL , 1980 | | | |
| 04... | 1730 | 80 | 12.5 | 09... | 1710 | 70 | 16.0 |
| MAY , 1980 | | | | AUG | | | |
| 20... | 1640 | 70 | 10.0 | 13... | 1730 | 75 | 17.5 |
| JUN | | | | SEP | | | |
| 13... | 0910 | 75 | 7.5 | 10... | 1145 | 70 | 14.0 |

### 09021000 - WILLOW CREEK BELOW WILLOW CREEK RESERVOIR, CO. (LAT 40 08 45 LONG 105 56 22)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 04... | 1605 | 80 | 13.0 | 15... | 1315 | 130 | 5.0 |
| NOV | | | | JUN | | | |
| 06... | 1555 | 130 | 5.0 | 13... | 1150 | 65 | 9.5 |
| DEC | | | | JUL | | | |
| 11... | 1535 | 110 | 3.0 | 09... | 1640 | 70 | 11.0 |
| JAN , 1980 | | | | AUG | | | |
| 23... | 0810 | 160 | 1.5 | 13... | 1430 | 100 | 27.0 |
| MAR | | | | SEP | | | |
| 06... | 0940 | 120 | 3.0 | 10... | 1025 | 150 | 16.0 |

### 09024000 - FRASER RIVER NEAR WINTER PARK, CO. (LAT 39 54 00 LONG 105 46 34)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 02... | 1040 | 100 | 5.5 | 19... | 1120 | 110 | 4.5 |
| NOV | | | | 28... | 1425 | 120 | 6.5 |
| 05... | 1055 | 120 | 1.0 | JUN | | | |
| DEC | | | | 09... | 1110 | 45 | 4.5 |
| 10... | 1115 | 125 | .0 | JUL | | | |
| JAN , 1980 | | | | 07... | 1120 | 75 | 12.0 |
| 21... | 1000 | 120 | .0 | AUG | | | |
| MAR | | | | 11... | 1110 | 80 | 12.0 |
| 03... | 1030 | 140 | .5 | SEP | | | |
| APR | | | | 08... | 1240 | 75 | 9.5 |
| 14... | 1140 | 140 | 1.0 | | | | |

### 09025000 - VASQUEZ CREEK NEAR WINTER PARK, CO. (LAT 39 55 13 LONG 105 47 05)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 02... | 1215 | 70 | 5.0 | 19... | 1340 | 50 | 5.0 |
| NOV | | | | 28... | 1140 | 40 | 3.5 |
| 05... | 1315 | 80 | .0 | JUN | | | |
| DEC | | | | 09... | 1220 | 30 | 5.0 |
| 10... | 1250 | 80 | .0 | JUL | | | |
| JAN , 1980 | | | | 07... | 1315 | 40 | 10.5 |
| 21... | 1200 | 80 | .0 | AUG | | | |
| MAR | | | | 11... | 1330 | 50 | 13.0 |
| 03... | 1250 | 60 | .5 | SEP | | | |
| APR | | | | 09... | 1000 | 40 | 8.5 |
| 14... | 1240 | 70 | .0 | | | | |

### 09025400 - ELK CREEK NEAR FRASER, CO. (LAT 39 55 09 LONG 105 49 31)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 06... | 1010 | 70 | 2.0 | 23... | 1300 | 40 | 5.0 |
| NOV | | | | JUN | | | |
| 09... | 1135 | 80 | .0 | 09... | 1640 | 40 | 9.5 |
| DEC | | | | JUL | | | |
| 10... | 1650 | 60 | .0 | 10... | 1425 | 40 | 13.5 |
| JAN , 1980 | | | | AUG | | | |
| 21... | 1345 | 70 | .0 | 11... | 1455 | 50 | 18.5 |
| MAR | | | | SEP | | | |
| 07... | 0950 | 60 | .5 | 09... | 1130 | 50 | 10.5 |
| APR | | | | | | | |
| 18... | 1005 | 75 | 1.0 | | | | |

### 09026500 - ST. LOUIS CREEK NEAR FRASER, CO. (LAT 39 54 36 LONG 105 52 40)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 02... | 1425 | 95 | 8.0 | 19... | 1520 | 100 | 6.5 |
| NOV | | | | JUN | | | |
| 09... | 0955 | 110 | .0 | 09... | 1500 | 65 | 8.5 |
| DEC | | | | JUL | | | |
| 14... | 1450 | 90 | .0 | 07... | 1410 | 75 | 10.0 |
| JAN , 1980 | | | | AUG | | | |
| 21... | 1530 | 140 | .0 | 12... | 0945 | 75 | 8.5 |
| MAR | | | | SEP | | | |
| 03... | 1415 | 100 | .0 | 08... | 1715 | 85 | 9.5 |
| APR | | | | | | | |
| 14... | 1400 | 100 | .5 | | | | |

### 09032000 - RANCH CREEK NEAR FRASER, CO. (LAT 39 57 00 LONG 105 45 54)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 02... | 1630 | 65 | 5.0 | 23... | 0940 | 40 | 2.5 |
| NOV | | | | JUN | | | |
| 05... | 1620 | 70 | .0 | 13... | 1315 | 30 | 7.0 |
| DEC | | | | JUL | | | |
| 10... | 1450 | 60 | .0 | 07... | 1515 | 35 | 10.0 |
| JAN , 1980 | | | | AUG | | | |
| 24... | 0850 | 80 | .5 | 11... | 1640 | 45 | 13.5 |
| MAR | | | | SEP | | | |
| 07... | 1120 | 55 | .0 | 08... | 1445 | 40 | 9.5 |
| APR | | | | | | | |
| 14... | 1550 | 60 | 1.0 | | | | |

### 09034900 - BOBTAIL CREEK NEAR JONES PASS, CO. (LAT 39 45 37 LONG 105 54 21)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 05... | 1410 | 60 | 7.5 | 15... | 1505 | 60 | .0 |
| NOV | | | | JUN | | | |
| 16... | 1220 | 50 | .0 | 20... | 1410 | <50 | 4.5 |
| DEC | | | | JUL | | | |
| 13... | 1255 | -- | .0 | 10... | 1155 | <50 | 11.0 |
| JAN , 1980 | | | | AUG | | | |
| 28... | 1400 | 50 | .0 | 11... | 1150 | <50 | 11.5 |
| MAR | | | | SEP | | | |
| 06... | 1330 | 80 | .0 | 11... | 1120 | 52 | 6.0 |

### 09035500 - WILLIAMS FORK BELOW STEELMAN CREEK, CO. (LAT 39 46 44 LONG 105 55 40)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 05... | 1210 | 60 | 6.0 | 15... | 1345 | 80 | 1.0 |
| NOV | | | | JUN | | | |
| 16... | 1330 | 60 | .0 | 20... | 1130 | 50 | 4.5 |
| DEC | | | | JUL | | | |
| 13... | 1400 | 70 | .0 | 10... | 1225 | 42 | 11.0 |
| JAN , 1980 | | | | AUG | | | |
| 28... | 1400 | -- | .0 | 11... | 1225 | 48 | 11.0 |
| MAR | | | | SEP | | | |
| 06... | 1350 | 70 | .0 | 11... | 1350 | 55 | 8.0 |

### 09035700 - WILLIAMS FORK ABOVE DARLING CREEK, NR LEAL, CO. (LAT 39 47 22 LONG 106 01 18)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 05... | 1010 | 80 | 4.0 | 21... | 1030 | 60 | 4.0 |
| NOV | | | | JUN | | | |
| 07... | 1640 | 80 | .0 | 11... | 1100 | 50 | 6.0 |
| DEC | | | | JUL | | | |
| 12... | 1330 | 60 | .0 | 08... | 1250 | 40 | 8.0 |
| JAN , 1980 | | | | AUG | | | |
| 22... | 1155 | 120 | .5 | 12... | 1705 | 60 | 15.0 |
| MAR | | | | SEP | | | |
| 04... | 1000 | 65 | .0 | 11... | 1245 | 55 | 10.5 |
| APR | | | | | | | |
| 16... | 1000 | 90 | 1.5 | | | | |

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) | DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| 09035800 - DARLING CREEK NEAR LEAL, CO. (LAT 39 48 17 LONG 106 01 11) | | | | | | | |
| OCT , 1979 | | | | MAY , 1980 | | | |
| 05... | 1455 | <50 | 4.5 | 21... | 1420 | 80 | 4.5 |
| NOV | | | | JUN | | | |
| 07... | 1035 | 50 | .0 | 11... | 1540 | 50 | 5.5 |
| DEC | | | | JUL | | | |
| 12... | 1550 | <50 | .0 | 08... | 1045 | 55 | 6.0 |
| JAN , 1980 | | | | AUG | | | |
| 22... | 1505 | 100 | .0 | 12... | 1310 | 75 | 9.5 |
| MAR | | | | SEP | | | |
| 04... | 1350 | 80 | .0 | 11... | 1135 | 70 | 6.0 |
| APR | | | | | | | |
| 16... | 1330 | 95 | 1.5 | | | | |
| 29... | 1125 | 70 | 1.5 | | | | |
| 09035900 - SOUTH FORK OF WILLIAMS FORK NEAR LEAL, CO. (LAT 39 47 44 LONG 106 01 49) | | | | | | | |
| OCT , 1979 | | | | MAY , 1980 | | | |
| 05... | 1210 | 100 | 4.0 | 21... | 1210 | 80 | 4.0 |
| NOV | | | | JUN | | | |
| 07... | 1355 | 110 | .0 | 11... | 1230 | 50 | 6.5 |
| DEC | | | | JUL | | | |
| 12... | 1115 | 80 | .0 | 08... | 1310 | 55 | 8.0 |
| JAN , 1980 | | | | AUG | | | |
| 22... | 1335 | -- | .0 | 12... | 1545 | 70 | 9.0 |
| MAR | | | | SEP | | | |
| 04... | 1200 | 95 | .0 | 11... | 1415 | 70 | 10.5 |
| APR | | | | | | | |
| 16... | 1140 | 100 | 1.5 | | | | |
| 29... | 1650 | 80 | 3.0 | | | | |
| 09036000 - WILLIAMS FORK NEAR LEAL, CO. (LAT 39 49 53 LONG 106 03 15) | | | | | | | |
| OCT , 1979 | | | | MAY , 1980 | | | |
| 05... | 1725 | 95 | 8.0 | 21... | 1550 | 80 | 11.5 |
| NOV | | | | JUN | | | |
| 08... | 1540 | 110 | 1.5 | 11... | 1730 | 45 | 10.5 |
| DEC | | | | JUL | | | |
| 13... | 1210 | 85 | .0 | 08... | 1545 | 50 | 11.5 |
| JAN , 1980 | | | | AUG | | | |
| 22... | 0925 | 140 | .0 | 14... | 1405 | 70 | 12.5 |
| MAR | | | | SEP | | | |
| 04... | 1615 | 85 | 1.0 | 11... | 1000 | 70 | 8.0 |
| APR | | | | | | | |
| 16... | 1430 | 90 | 5.0 | | | | |

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| 09037500 - WILLIAMS FORK NEAR PARSHALL, CO. (LAT 40 00 01 LONG 106 10 45) | | | | | | | |
| OCT , 1979 | | | | MAY , 1980 | | | |
| 04... | 1105 | 100 | 6.5 | 22... | 1440 | 70 | 11.5 |
| NOV | | | | JUN | | | |
| 08... | 1055 | 110 | 1.5 | 12... | 1110 | 50 | 6.0 |
| DEC | | | | JUL | | | |
| 14... | 1205 | 100 | .0 | 10... | 1005 | 70 | 13.5 |
| JAN , 1980 | | | | AUG | | | |
| 22... | 1720 | 140 | .0 | 14... | 1205 | 95 | 17.5 |
| MAR | | | | SEP | | | |
| 06... | 1455 | 95 | .0 | 10... | 1420 | 90 | 15.0 |
| APR | | | | | | | |
| 17... | 1500 | 110 | 7.5 | | | | |
| 30... | 1420 | 90 | 5.0 | | | | |
| 09038500 - WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO. (LAT 40 02 07 LONG 106 12 17) | | | | | | | |
| OCT , 1979 | | | | MAY , 1980 | | | |
| 04... | 1350 | 100 | 10.0 | 22... | 1240 | 110 | 5.0 |
| NOV | | | | JUN | | | |
| 08... | 1320 | 120 | 7.0 | 12... | 1150 | 100 | 8.5 |
| JAN , 1980 | | | | JUL | | | |
| 23... | 1530 | 140 | 3.0 | 10... | 1130 | 100 | 9.5 |
| MAR | | | | AUG | | | |
| 06... | 1305 | 120 | 3.0 | 14... | 1035 | 90 | 9.0 |
| APR | | | | SEP | | | |
| 17... | 1310 | 110 | 3.0 | 10... | 1635 | 80 | 10.0 |
| 09039000 - TROUBLESOME CREEK NEAR PEARMONT, CO. (LAT 40 13 03 LONG 106 18 45) | | | | | | | |
| OCT , 1979 | | | | MAY , 1980 | | | |
| 02... | 1715 | 130 | 10.5 | 28... | 1720 | 180 | 12.0 |
| NOV | | | | JUN | | | |
| 06... | 1100 | 120 | .0 | 11... | 1330 | 70 | 13.0 |
| DEC | | | | JUL | | | |
| 19... | 1135 | -- | .0 | 17... | 1330 | 108 | 18.0 |
| JAN , 1980 | | | | AUG | | | |
| 30... | 1525 | 110 | .0 | 19... | 1905 | 120 | 15.5 |
| MAR | | | | SEP | | | |
| 19... | 1425 | 110 | .0 | 17... | 1040 | 110 | 8.0 |
| APR | | | | 30... | 1135 | 85 | 8.0 |
| 16... | 1140 | 85 | 4.0 | | | | |

### 09040000 - EAST FORK TROUBLESOME C NEAR TROUBLESOME, CO. (LAT 40 09 27 LONG 106 16 58)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) | DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 02... | 1425 | 240 | 10.0 | 28... | 1430 | 100 | 9.0 |
| NOV | | | | JUN | | | |
| 06... | 1250 | 280 | .5 | 11... | 1525 | 100 | 13.5 |
| DEC | | | | JUL | | | |
| 19... | 1410 | 230 | .0 | 17... | 1500 | 200 | 21.0 |
| JAN , 1980 | | | | AUG | | | |
| 30... | 1715 | 200 | .0 | 19... | 1610 | 210 | 19.0 |
| MAR | | | | SEP | | | |
| 19... | 1645 | 220 | .0 | 17... | 1225 | 180 | 14.0 |
| APR | | | | 30... | 1330 | 220 | 11.0 |
| 16... | 1345 | 170 | 8.5 | | | | |

### 09046600 - BLUE RIVER NEAR DILLON, CO. (LAT 39 32 55 LONG 106 02 19)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 03... | 1500 | 180 | 7.0 | 27... | 1600 | 145 | 6.0 |
| NOV | | | | JUN | | | |
| 08... | 1630 | 100 | 2.0 | 16... | 1250 | 90 | 9.0 |
| DEC | | | | JUL | | | |
| 12... | 1800 | 95 | .0 | 16... | 1730 | 105 | 10.5 |
| JAN , 1980 | | | | AUG | | | |
| 29... | 0835 | 75 | 1.0 | 18... | 1510 | 140 | 11.5 |
| MAR | | | | SEP | | | |
| 03... | 1220 | 125 | 1.5 | 16... | 1430 | 145 | 11.0 |
| APR | | | | | | | |
| 15... | 1125 | 180 | 3.0 | | | | |

### 09047500 - SNAKE RIVER NEAR MONTEZUMA, CO. (LAT 39 36 20 LONG 105 56 33)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 01... | 1350 | 125 | 9.0 | 27... | 1105 | 95 | 4.0 |
| NOV | | | | JUN | | | |
| 05... | 1210 | 120 | 1.0 | 10... | 1130 | 56 | 4.5 |
| DEC | | | | JUL | | | |
| 18... | 1130 | 110 | .0 | 14... | 1355 | 70 | 11.5 |
| JAN , 1980 | | | | AUG | | | |
| 29... | 1025 | 130 | .0 | 18... | 1105 | 92 | 8.5 |
| MAR | | | | SEP | | | |
| 18... | 1115 | 110 | .0 | 16... | 1110 | 100 | 6.5 |
| APR | | | | | | | |
| 22... | 1300 | 110 | 3.0 | | | | |

# SPECIFIC CONDUCTANCE AND TEMPERATURE DATA AT SELECTED SITES

09047700 - KEYSTONE GULCH NEAR DILLON, CO. (LAT 39 35 40 LONG 105 58 19)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 01... | 1515 | 90 | 9.0 | 27... | 1310 | 70 | 6.0 |
| NOV | | | | JUN | | | |
| 05... | 1325 | 88 | .0 | 16... | 1025 | 52 | 4.0 |
| DEC | | | | JUL | | | |
| 18... | 1300 | -- | .0 | 14... | 1220 | 65 | 9.0 |
| JAN , 1980 | | | | AUG | | | |
| 29... | 1230 | 95 | .0 | 18... | 1305 | 48 | 12.0 |
| MAR | | | | SEP | | | |
| 18... | 1300 | 85 | .0 | 16... | 1255 | 75 | 7.0 |
| APR | | | | | | | |
| 22... | 1645 | 75 | 1.0 | | | | |

09050100 - TENMILE CREEK BL NORTH TENMILE C, AT FRISCO, CO. (LAT 39 34 37 LONG 106 06 33)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 02... | 1200 | 210 | 7.0 | 27... | 1825 | 200 | 8.0 |
| NOV | | | | JUN | | | |
| 08... | 1600 | 190 | 3.0 | 10... | 1520 | 175 | 9.0 |
| DEC | | | | JUL | | | |
| 12... | 1515 | 110 | .0 | 18... | 1530 | 140 | 13.5 |
| JAN , 1980 | | | | AUG | | | |
| 28... | 1210 | 75 | .0 | 18... | 1635 | 375 | 14.0 |
| MAR | | | | SEP | | | |
| 03... | 1045 | 85 | .0 | 16... | 1650 | 600 | 11.0 |
| APR | | | | | | | |
| 15... | 1625 | 80 | 4.0 | | | | |

09050700 - BLUE RIVER BELOW DILLON, CO. (LAT 39 37 32 LONG 106 03 57)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 01... | 1100 | 170 | 6.5 | 15... | 1800 | 240 | 3.0 |
| NOV | | | | JUN | | | |
| 07... | 1600 | 320 | 5.0 | 18... | 1620 | 180 | 5.0 |
| DEC | | | | JUL | | | |
| 18... | 1605 | 250 | 3.0 | 14... | 1615 | 130 | 16.0 |
| JAN , 1980 | | | | AUG | | | |
| 29... | 1515 | 220 | 2.0 | 21... | 1150 | 170 | 6.0 |
| MAR | | | | SEP | | | |
| 18... | 1545 | 260 | 3.5 | 19... | 0850 | 180 | 6.0 |

### 09052000 - ROCK CREEK NEAR CILLON, CO. (LAT 39 43 23 LONG 106 07 41)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 03... | 1730 | 77 | 6.5 | 29... | 1310 | 35 | 3.5 |
| NOV | | | | JUN | | | |
| 05... | 1630 | 70 | .0 | 12... | 0850 | 25 | 3.0 |
| DEC | | | | JUL | | | |
| 21... | 0935 | -- | .0 | 15... | 1700 | 25 | 12.5 |
| JAN , 1980 | | | | AUG | | | |
| 29... | 1700 | 65 | .0 | 21... | 0945 | 42 | 8.0 |
| MAR | | | | SEP | | | |
| 20... | 0945 | 76 | .0 | 19... | 1055 | 52 | 7.5 |
| APR | | | | | | | |
| 23... | 1630 | 65 | 1.0 | | | | |

### 09052400 - BOULDER CREEK AT UPPER STATION, NEAR DILLON, CO. (LAT 39 43 41 LONG 106 10 22)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 04... | 0955 | 50 | 4.0 | 30... | 1110 | 38 | .5 |
| NOV | | | | JUN | | | |
| 08... | 1540 | 73 | .0 | 17... | 1220 | 28 | 5.0 |
| DEC | | | | JUL | | | |
| 21... | 1030 | -- | .0 | 15... | 1500 | 24 | 11.5 |
| FEB , 1980 | | | | AUG | | | |
| 01... | 1155 | 28 | .0 | 20... | 1700 | 36 | 13.0 |
| MAR | | | | SEP | | | |
| 20... | 1115 | 76 | .0 | 18... | 1715 | 43 | 11.5 |
| APR | | | | | | | |
| 24... | 1615 | 65 | .0 | | | | |

### 09052800 - SLATE CREEK AT UPPER STATION, NEAR DILLON, CO. (LAT 39 45 47 LONG 106 11 31)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 04... | 1400 | 56 | 7.5 | 30... | 1400 | 33 | 8.0 |
| NOV | | | | JUN | | | |
| 09... | 1220 | 85 | .0 | 12... | 1535 | 22 | 8.5 |
| DEC | | | | 17... | 1620 | 22 | 10.0 |
| 21... | 1550 | -- | .0 | JUL | | | |
| FEB , 1980 | | | | 18... | 1200 | 20 | 10.0 |
| 01... | 0955 | 30 | .0 | SEP | | | |
| MAR | | | | 05... | 1225 | 35 | 10.5 |
| 20... | 1345 | 40 | .0 | 19... | 1430 | 38 | 10.0 |
| APR | | | | | | | |
| 25... | 1040 | 63 | .0 | | | | |

### 09054000 - BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO. (LAT 39 47 59 LONG 106 16 04)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 03... | 1450 | -- | 12.5 | 29... | 1505 | 32 | 6.0 |
| NOV | | | | JUN | | | |
| 08... | 1115 | 28 | 5.5 | 18... | 1300 | 28 | 7.0 |
| DEC | | | | JUL | | | |
| 20... | 1600 | -- | 1.0 | 15... | 1150 | 16 | 10.0 |
| JAN , 1980 | | | | AUG | | | |
| 31... | 1655 | 24 | .0 | 20... | 1410 | 18 | 15.0 |
| MAR | | | | SEP | | | |
| 13... | 1540 | 38 | 1.0 | 18... | 1455 | 21 | 14.0 |
| MAY | | | | | | | |
| 01... | 1050 | 36 | 2.0 | | | | |

### 09055300 - CATARACT CREEK NEAR KREMMLING, CO. (LAT 39 50 07 LONG 106 18 57)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 03... | 1155 | 37 | 12.5 | 29... | 0935 | 49 | 5.5 |
| NOV | | | | JUN | | | |
| 07... | 1215 | 42 | 4.5 | 18... | 0840 | 25 | 8.0 |
| DEC | | | | JUL | | | |
| 20... | 1000 | 52 | 2.0 | 15... | 0950 | 22 | 5.5 |
| JAN , 1980 | | | | AUG | | | |
| 31... | 1145 | 60 | .5 | 20... | 0900 | 28 | 16.0 |
| MAR | | | | SEP | | | |
| 13... | 1015 | 51 | .5 | 18... | 0955 | 30 | 14.0 |
| APR | | | | | | | |
| 17... | 1000 | 52 | 2.0 | | | | |

### 09057500 - BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO. (LAT 39 52 49 LONG 106 20 00)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 03... | 1000 | 150 | 13.5 | 29... | 1210 | 170 | 8.0 |
| NOV | | | | JUL | | | |
| 07... | 1000 | 175 | 8.5 | 18... | 0915 | 130 | 10.0 |
| JAN , 1980 | | | | AUG | | | |
| 31... | 1430 | 160 | 2.0 | 20... | 1140 | 145 | 11.5 |
| MAR | | | | SEP | | | |
| 13... | 1240 | 170 | 3.0 | 18... | 1240 | 150 | 14.0 |
| APR | | | | | | | |
| 17... | 1420 | 160 | 2.5 | | | | |
| 24... | 1155 | 190 | 2.0 | | | | |

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| **09058000 - COLORADO RIVER NEAR KREMMLING, CO. (LAT 40 02 12 LONG 106 26 22)** | | | | | | | |
| OCT , 1979<br>02... | 1115 | 200 | 10.5 | MAY , 1980<br>28... | 1045 | 150 | 9.0 |
| NOV<br>06... | 1715 | 230 | 5.0 | JUN<br>11... | 1030 | 160 | 13.0 |
| DEC<br>19... | 1540 | -- | .0 | JUL<br>17... | 0950 | 260 | 13.5 |
| JAN , 1980<br>30... | 1030 | -- | .0 | AUG<br>19... | 1050 | 210 | 13.0 |
| MAR<br>19... | 0940 | 220 | .0 | SEP<br>17... | 1715 | 185 | 15.5 |
| APR<br>16... | 1730 | 240 | 8.0 | | | | |
| 30... | 1110 | 260 | 6.5 | | | | |
| **09058500 - PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO. (LAT 39 42 29 LONG 106 25 38)** | | | | | | | |
| OCT , 1979<br>04... | 1340 | 41 | 5.0 | JUN , 1980<br>17... | 1500 | 22 | 7.5 |
| NOV<br>15... | 1255 | 75 | .0 | JUL<br>15... | 1800 | 26 | 13.5 |
| APR , 1980<br>15... | 1525 | <50 | .0 | AUG<br>27... | 1520 | 48 | 16.0 |
| **09058610 - DICKSON CREEK NEAR VAIL, CO. (LAT 39 42 14 LONG 106 27 25)** | | | | | | | |
| OCT , 1979<br>04... | 0930 | 360 | 4.0 | JUN , 1980<br>10... | 1445 | 230 | 14.5 |
| NOV<br>14... | 1240 | 750 | .5 | JUL<br>15... | 1140 | 200 | 14.5 |
| APR , 1980<br>15... | 1405 | 380 | .0 | AUG<br>27... | 1135 | 320 | 11.0 |
| **09058700 - FREEMAN CREEK NEAR MINTURN, CO. (LAT 39 41 55 LONG 106 26 41)** | | | | | | | |
| OCT , 1979<br>04... | 1100 | 160 | 5.5 | JUL , 1980<br>15... | 1330 | 190 | 18.5 |
| APR , 1980<br>15... | 1040 | 260 | .0 | AUG<br>27... | 1030 | 142 | 12.0 |
| **09058800 - EAST MEADOW CREEK NEAR MINTURN CO. (LAT 39 43 54 LONG 106 25 36)** | | | | | | | |
| OCT , 1979<br>04... | 1430 | 56 | 3.5 | JUN , 1980<br>11... | 1035 | 30 | 2.5 |
| NOV<br>15... | 1035 | 50 | .0 | JUL<br>15... | 1610 | 42 | 11.0 |
| APR , 1980<br>15... | 0910 | 75 | .0 | AUG<br>27... | 1335 | 63 | 8.0 |

09059500 - PINEY RIVER NEAR STATE BRIDGE, CO. (LAT 39 48 00 LONG 106 35 00)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 03... | 1420 | 390 | 11.0 | 15... | 1120 | 330 | 5.5 |
| NOV | | | | MAY | | | |
| 13... | 1600 | 650 | .5 | 29... | 1535 | 240 | 7.0 |
| JAN , 1980 | | | | JUN | | | |
| 07... | 1550 | 800 | .0 | 17... | 2120 | 90 | 9.5 |
| FEB | | | | AUG | | | |
| 28... | 1430 | -- | .5 | 26... | 1435 | 290 | 15.0 |

09060500 - ROCK CREEK NEAR TOPONAS, CO. (LAT 40 02 28 LONG 106 39 19)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | JUN , 1980 | | | |
| 01... | 1110 | 120 | 9.0 | 10... | 1010 | 50 | 8.5 |
| JAN , 1980 | | | | JUL | | | |
| 16... | 1235 | 100 | .0 | 31... | 1205 | 90 | 17.0 |
| MAY | | | | | | | |
| 02... | 1210 | 200 | 3.0 | | | | |

09063000 - EAGLE RIVER AT RED CLIFF, CO. (LAT 39 30 34 LONG 106 22 00)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 02... | 1645 | 240 | 11.0 | 19... | 1710 | 190 | 9.0 |
| NOV | | | | JUN | | | |
| 20... | 1510 | 150 | .0 | 11... | 1845 | 150 | 9.5 |
| JAN , 1980 | | | | JUL | | | |
| 08... | 1620 | 375 | .0 | 17... | 1020 | 170 | 14.0 |
| FEB | | | | AUG | | | |
| 27... | 1130 | -- | .5 | 28... | 1610 | 220 | 16.0 |
| APR | | | | | | | |
| 16... | 1420 | 200 | 4.0 | | | | |

09063200 - WEARYMAN CREEK NEAR RED CLIFF, CO. (LAT 39 31 14 LONG 106 19 06)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 02... | 1430 | 270 | 5.0 | 16... | 1315 | 345 | 1.5 |
| NOV | | | | MAY | | | |
| 21... | 0945 | 110 | .0 | 20... | 1540 | 320 | 4.0 |
| JAN , 1980 | | | | JUN | | | |
| 08... | 1310 | 650 | .0 | 09... | 1505 | 210 | 6.0 |
| FEB | | | | AUG | | | |
| 26... | 1555 | -- | .5 | 28... | 1410 | 190 | 8.0 |

09063400 - TURKEY CREEK NEAR RED CLIFF, CO. (LAT 39 31 22 LONG 106 20 15)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 02... | 1535 | 240 | 7.0 | 16... | 1735 | 280 | 1.5 |
| NOV | | | | MAY | | | |
| 21... | 1050 | -- | .0 | 20... | 1755 | 270 | 4.5 |
| JAN , 1980 | | | | JUN | | | |
| 08... | 1345 | 575 | .0 | 09... | 1700 | 180 | 6.0 |
| FEB | | | | AUG | | | |
| 26... | 1730 | -- | .0 | 28... | 1510 | 270 | 10.5 |

### 09063900 - MISSOURI CREEK NEAR GOLD PARK, CO. (LAT 39 23 25 LONG 106 28 10)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | JUL , 1980 | | | |
| 02... | 1130 | 28 | 5.0 | 16... | 1540 | 20 | 16.0 |
| MAY , 1980 | | | | AUG | | | |
| 21... | 1115 | 25 | 5.0 | 28... | 0950 | 21 | 8.0 |
| JUN | | | | | | | |
| 12... | 1255 | 20 | 6.0 | | | | |

### 09064000 - HOMESTAKE CREEK AT GOLD PARK, CO. (LAT 39 24 20 LONG 106 25 58)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 02... | 1040 | 28 | 4.0 | 21... | 1600 | 25 | 5.0 |
| NOV | | | | JUN | | | |
| 20... | 1325 | 25 | .5 | 12... | 1450 | 25 | 9.0 |
| FEB , 1980 | | | | JUL | | | |
| 27... | 1615 | -- | .5 | 16... | 1725 | 26 | 17.0 |
| APR | | | | AUG | | | |
| 15... | 1125 | 36 | 1.0 | 28... | 1105 | 26 | 10.0 |

### 09064500 - HOMESTAKE CREEK NEAR RED CLIFF, CO. (LAT 39 28 24 LONG 106 22 02)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 02... | 0915 | 33 | 4.5 | 22... | 0950 | 30 | 5.5 |
| NOV | | | | JUN | | | |
| 19... | 1545 | -- | .5 | 12... | 1650 | 28 | 12.5 |
| JAN , 1980 | | | | JUL | | | |
| 09... | 1015 | 85 | .5 | 16... | 1310 | 29 | 17.5 |
| FEB | | | | AUG | | | |
| 28... | 0935 | -- | .5 | 28... | 1245 | 31 | 18.0 |

### 09065100 - CROSS CREEK NEAR MINTURN, CO. (LAT 39 34 05 LONG 106 24 45)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 05... | 1015 | 48 | 4.0 | 22... | 1200 | 25 | 4.5 |
| NOV | | | | JUN | | | |
| 21... | 1215 | 80 | .0 | 17... | 1730 | 20 | 8.5 |
| JAN , 1980 | | | | JUL | | | |
| 09... | 1205 | 125 | .0 | 17... | 1240 | 24 | 12.0 |
| FEB | | | | AUG | | | |
| 28... | 1150 | -- | .5 | 29... | 0830 | 28 | 9.5 |
| APR | | | | | | | |
| 15... | 1410 | 50 | 1.5 | | | | |

### 09065500 - GORE CREEK AT UPPER STATION, NEAR MINTURN, CO. (LAT 39 37 40 LONG 106 16 24)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 02... | 1820 | 120 | 7.0 |
| NOV | | | |
| 07... | 1130 | 250 | 1.5 |
| DEC | | | |
| 12... | 0905 | 60 | .0 |
| JAN , 1980 | | | |
| 28... | 1035 | <50 | .0 |
| MAR | | | |
| 05... | 1215 | <50 | .0 |
| APR | | | |
| 09... | 1400 | 85 | .0 |
| MAY , 1980 | | | |
| 13... | 1450 | 50 | 1.0 |
| JUN | | | |
| 10... | 1400 | 120 | 2.0 |
| 19... | 1450 | 85 | 5.0 |
| JUL | | | |
| 17... | 1125 | 70 | 10.0 |
| 24... | 1245 | 60 | 9.0 |
| AUG | | | |
| 21... | 1325 | <50 | 10.0 |
| SEP | | | |
| 18... | 1345 | 85 | 9.0 |

### 09066000 - BLACK GORE CREEK NEAR MINTURN, CO. (LAT 39 35 47 LONG 106 15 52)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 02... | 1820 | 185 | 7.0 |
| NOV | | | |
| 07... | 1115 | 195 | 1.0 |
| JAN , 1980 | | | |
| 28... | 1630 | <50 | .0 |
| MAR | | | |
| 04... | 1540 | <50 | .0 |
| APR | | | |
| 09... | 1215 | 85 | .0 |
| 23... | 1100 | 240 | 2.5 |
| MAY , 1980 | | | |
| 14... | 1235 | 100 | 1.0 |
| JUN | | | |
| 10... | 1500 | 200 | 2.0 |
| 19... | 1630 | 180 | 5.0 |
| JUL | | | |
| 24... | 1145 | 130 | 10.0 |
| AUG | | | |
| 21... | 1135 | 60 | 10.0 |
| SEP | | | |
| 18... | 1205 | 180 | 9.5 |

### 09066100 - BIGHORN CREEK NEAR MINTURN, CO. (LAT 39 38 24 LONG 106 17 34)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 03... | 0930 | 80 | 7.0 |
| NOV | | | |
| 07... | 1820 | <50 | 1.5 |
| DEC | | | |
| 11... | 1350 | <50 | .0 |
| JAN , 1980 | | | |
| 29... | 1550 | <50 | .0 |
| MAR | | | |
| 05... | 1435 | <50 | .0 |
| APR | | | |
| 11... | 1050 | 60 | .0 |
| MAY , 1980 | | | |
| 13... | 1635 | 75 | 1.0 |
| JUN | | | |
| 10... | 1220 | 100 | 3.0 |
| 19... | 1405 | 125 | 5.0 |
| JUL | | | |
| 24... | 1350 | <50 | 10.0 |
| AUG | | | |
| 21... | 1355 | <50 | 10.0 |
| SEP | | | |
| 18... | 1450 | <50 | 9.0 |

09066150 - PITKIN CREEK NEAR MINTURN, CO. (LAT 39 38 37 LONG 106 18 07)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 03... | 1200 | 90 | 7.0 |
| NOV | | | |
| 07... | 0750 | <50 | 1.0 |
| DEC | | | |
| 11... | 1450 | <50 | .0 |
| JAN , 1980 | | | |
| 30... | 1050 | <50 | .0 |
| MAR | | | |
| 05... | 1050 | <50 | .0 |
| APR | | | |
| 08... | 1310 | 65 | .0 |
| MAY , 1980 | | | |
| 13... | 1130 | 50 | 1.0 |
| JUN | | | |
| 10... | 1050 | 85 | 2.0 |
| 19... | 1515 | 100 | 5.0 |
| JUL | | | |
| 24... | 1455 | <50 | 10.0 |
| AUG | | | |
| 21... | 1350 | <50 | 10.0 |
| SEP | | | |
| 18... | 1615 | 85 | 9.0 |

09066200 - BOOTH CREEK NEAR MINTURN, CO. (LAT 39 39 02 LONG 106 19 16)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 03... | 1350 | 85 | 7.0 |
| NOV | | | |
| 08... | 1420 | <50 | 1.0 |
| DEC | | | |
| 13... | 1100 | <50 | .0 |
| JAN , 1980 | | | |
| 30... | 1300 | <50 | .0 |
| MAR | | | |
| 06... | 1045 | <50 | .0 |
| APR | | | |
| 10... | 1055 | 60 | .0 |
| 23... | 1230 | 85 | 2.5 |
| MAY , 1980 | | | |
| 13... | 1430 | 65 | 1.0 |
| JUN | | | |
| 10... | 0905 | 110 | 3.0 |
| 19... | 1235 | 65 | 5.0 |
| JUL | | | |
| 24... | 1500 | 50 | 9.0 |
| AUG | | | |
| 21... | 1450 | <50 | 10.0 |
| SEP | | | |
| 18... | 1525 | 85 | 9.0 |

09066300 - MIDDLE CREEK NEAR MINTURN, CO. (LAT 39 38 50 LONG 106 22 48)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 03... | 1250 | 125 | 6.0 |
| NOV | | | |
| 08... | 0945 | <50 | 1.0 |
| DEC | | | |
| 13... | 0910 | <50 | .0 |
| JAN , 1980 | | | |
| 30... | 1545 | <50 | .0 |
| MAR | | | |
| 06... | 1240 | <50 | .0 |
| APR | | | |
| 08... | 1445 | 60 | .0 |
| MAY , 1980 | | | |
| 14... | 0855 | <50 | 1.5 |
| JUN | | | |
| 10... | 0730 | 100 | 3.0 |
| 19... | 1550 | 120 | 5.0 |
| JUL | | | |
| 24... | 1550 | <50 | 8.0 |
| AUG | | | |
| 21... | 1450 | <50 | 10.0 |
| SEP | | | |
| 18... | 1500 | <50 | 9.0 |

09066400 - RED SANDSTONE CREEK NEAR MINTURN, CO. (LAT 39 40 58 LONG 106 24 03)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 01... | 1535 | 85 | 6.5 | 20... | 1110 | 70 | 2.5 |
| NOV | | | | JUN | | | |
| 14... | 1705 | 80 | .0 | 10... | 1700 | 35 | 6.0 |
| FEB , 1980 | | | | JUL | | | |
| 26... | 1200 | 90 | .5 | 16... | 0935 | 70 | 5.5 |
| APR | | | | AUG | | | |
| 17... | 1005 | 95 | 1.0 | 27... | 1655 | 90 | 10.5 |

09070000 - EAGLE RIVER BELOW GYPSUM, CO. (LAT 39 38 58 LONG 106 57 11)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 02... | 1200 | 1150 | 11.5 | 29... | 1200 | 470 | 11.0 |
| NOV | | | | JUN | | | |
| 06... | 1200 | 1060 | 4.0 | 03... | 1200 | 210 | 9.5 |
| DEC | | | | 17... | 1300 | 170 | 10.0 |
| 20... | 1300 | 1150 | .0 | JUL | | | |
| JAN , 1980 | | | | 15... | 1200 | 430 | 16.0 |
| 29... | 1300 | 1100 | .0 | SEP | | | |
| MAR | | | | 03... | 1300 | 940 | 15.0 |
| 18... | 1400 | 980 | 4.5 | | | | |
| 27... | 1030 | 900 | 3.0 | | | | |

09071300 - GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO. (LAT 39 43 04 LONG 107 18 51)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | JUL , 1980 | | | |
| 03... | 0900 | 160 | 5.0 | 30... | 1330 | 180 | 15.0 |
| JUN , 1980 | | | | SEP | | | |
| 18... | 1300 | 150 | 7.0 | 02... | 1400 | 190 | 14.0 |
| 24... | 1800 | 140 | 10.5 | | | | |

09073300 - ROARING FORK RIVER AB DIFFICULT C NR ASPEN, CO. (LAT 39 08 28 LONG 106 46 25)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 04... | 1220 | -- | 6.0 | 19... | 1330 | -- | 7.0 |
| NOV | | | | JUN | | | |
| 07... | 1600 | 80 | 2.5 | 05... | 1145 | 50 | 5.5 |
| DEC | | | | 19... | 1045 | 25 | 5.0 |
| 20... | 1200 | 47 | .5 | JUL | | | |
| FEB , 1980 | | | | 16... | 1650 | 32 | 13.5 |
| 06... | 1035 | 68 | 1.0 | AUG | | | |
| MAR | | | | 25... | 1425 | 60 | 13.0 |
| 10... | 1325 | 80 | 2.0 | | | | |
| APR | | | | | | | |
| 14... | 1335 | 90 | 4.0 | | | | |

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) | DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| 09073400 - ROARING FORK RIVER NEAR ASPEN, CO. (LAT 39 10 48 LONG 106 48 05) | | | | | | | |
| OCT , 1979 | | | | APR , 1980 | | | |
| 04... | 1015 | 80 | 5.5 | 14... | 1430 | 105 | 5.5 |
| NOV | | | | JUN | | | |
| 07... | 0910 | 44 | 2.5 | 04... | 1530 | <50 | 9.0 |
| DEC | | | | 19... | 1300 | 30 | 8.0 |
| 20... | 0920 | 50 | .0 | JUL | | | |
| FEB , 1980 | | | | 17... | 1315 | 37 | 13.5 |
| 06... | 1200 | 80 | 1.0 | AUG | | | |
| MAR | | | | 25... | 1600 | 70 | 14.0 |
| 10... | 1520 | 85 | 3.0 | | | | |
| 09073700 - HUNTER CREEK ABOVE MIDWAY CREEK, NEAR ASPEN, CO. (LAT 39 12 50 LONG 106 39 19) | | | | | | | |
| NOV , 1979 | | | | JUL , 1980 | | | |
| 01... | 1400 | -- | .0 | 15... | 1600 | 18 | 13.0 |
| APR , 1980 | | | | AUG | | | |
| 16... | 1005 | <50 | 1.0 | 20... | 1330 | 29 | 10.5 |
| JUN | | | | | | | |
| 19... | 1400 | -- | 7.0 | | | | |
| 09073800 - MIDWAY CREEK NEAR ASPEN, CO. (LAT 39 11 47 LONG 106 41 22) | | | | | | | |
| OCT , 1979 | | | | JUL , 1980 | | | |
| 16... | 1035 | 28 | 3.0 | 15... | 1300 | 19 | 10.5 |
| APR , 1980 | | | | AUG | | | |
| 16... | 1010 | <50 | .0 | 20... | 1100 | 29 | 7.0 |
| JUN | | | | | | | |
| 19... | 1145 | -- | 5.0 | | | | |
| 09073900 - NO NAME CREEK NEAR ASPEN, CO. (LAT 39 11 20 LONG 106 43 04) | | | | | | | |
| OCT , 1979 | | | | JUL , 1980 | | | |
| 16... | 1300 | 24 | 3.0 | 15... | 1100 | 21 | 3.0 |
| APR , 1980 | | | | AUG | | | |
| 16... | 1000 | 31 | .5 | 20... | 0920 | 26 | 6.0 |
| JUN | | | | | | | |
| 19... | 1700 | -- | 8.5 | | | | |
| 09074000 - HUNTER CREEK NEAR ASPEN, CO. (LAT 39 12 21 LONG 106 47 49) | | | | | | | |
| OCT , 1979 | | | | APR , 1980 | | | |
| 04... | 1530 | 42 | 10.5 | 14... | 1430 | 80 | 4.0 |
| NOV | | | | JUN | | | |
| 08... | 1330 | 40 | 21.0 | 05... | 1000 | <50 | 4.5 |
| DEC | | | | 20... | 1030 | 22 | 5.0 |
| 19... | 1400 | 35 | .0 | JUL | | | |
| FEB , 1980 | | | | 17... | 1015 | 30 | 12.0 |
| 07... | 1045 | 96 | .5 | AUG | | | |
| MAR | | | | 25... | 1735 | 42 | 14.0 |
| 12... | 1400 | 100 | 1.0 | | | | |

### 09074800 - CASTLE CREEK ABOVE ASPEN, CO. (LAT 39 05 15 LONG 106 48 42)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 10... | 1320 | 340 | 7.0 | 14... | 1315 | 400 | 4.5 |
| NOV | | | | JUN | | | |
| 07... | 1330 | 340 | 2.5 | 05... | 1430 | 180 | 9.5 |
| DEC | | | | 19... | 1530 | 25 | 6.0 |
| 19... | 1225 | 360 | .5 | JUL | | | |
| FEB , 1980 | | | | 17... | 1520 | 110 | 12.0 |
| 07... | 1330 | 400 | 2.0 | AUG | | | |
| MAR | | | | 21... | 1705 | 300 | 13.0 |
| 12... | 1050 | 440 | .5 | | | | |

### 09075700 - MAROON CREEK ABOVE ASPEN, CO. (LAT 39 07 25 LONG 106 54 17)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | JUN , 1980 | | | |
| 10... | 1045 | 490 | 7.0 | 06... | 1700 | 300 | 8.5 |
| NOV | | | | 19... | 1800 | 20 | 5.0 |
| 07... | 1130 | 580 | 4.5 | JUL | | | |
| FEB , 1980 | | | | 17... | 1820 | 120 | 8.5 |
| 06... | 1450 | 725 | 4.0 | AUG | | | |
| APR | | | | 21... | 1420 | 42 | 11.5 |
| 14... | 1305 | 720 | 7.0 | | | | |

### 09076520 - OWL CREEK NEAR ASPEN, CO. (LAT 39 13 25 LONG 106 52 45)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 10... | 0910 | 500 | 4.5 | 14... | 1450 | 520 | .5 |
| NOV | | | | JUN | | | |
| 08... | 1140 | 550 | 2.0 | 04... | 1700 | 165 | 14.0 |
| DEC | | | | 20... | 1130 | 400 | 12.0 |
| 20... | 1445 | 490 | -- | JUL | | | |
| FEB , 1980 | | | | 18... | 1015 | 340 | 13.0 |
| 06... | 1650 | 570 | .5 | AUG | | | |
| MAR | | | | 22... | 0755 | 250 | 8.0 |
| 12... | 1530 | -- | .5 | | | | |

### 09077200 - FRYINGPAN RIVER NEAR IVANHOE LAKE, CO. (LAT 39 14 44 LONG 106 31 51)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | JUL , 1980 | | | |
| 02... | 1015 | -- | 3.0 | 22... | 0950 | -- | 12.0 |
| 15... | 0940 | -- | 1.0 | AUG | | | |
| MAY , 1980 | | | | 04... | 0945 | -- | 8.0 |
| 21... | 1300 | -- | 2.0 | 19... | 0925 | -- | 10.0 |
| 26... | 1120 | -- | 3.0 | SEP | | | |
| JUN | | | | 04... | 0915 | -- | 5.5 |
| 11... | 1040 | -- | 3.5 | 17... | 0945 | -- | 9.0 |
| 24... | 1200 | -- | 7.0 | | | | |

### 09077610 - IVANHCE CREEK NEAR NAST. CO. (LAT 39 17 13 LONG 106 33 31)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE. WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE. WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT . 1979 | | | | JUL . 1980 | | | |
| 02... | 1120 | -- | 5.0 | 22... | 1105 | -- | 13.0 |
| 15... | 1045 | -- | 1.0 | AUG | | | |
| MAY . 1980 | | | | 04... | 1105 | -- | 12.0 |
| 12... | 1300 | -- | 1.0 | 19... | 1030 | -- | 9.5 |
| JUN | | | | SEP | | | |
| 03... | 1045 | -- | 1.0 | 04... | 1000 | -- | 8.0 |
| 11... | 1205 | -- | 3.0 | 17... | 1100 | -- | 7.0 |
| 18... | 1005 | -- | 3.0 | | | | |

### 09077800 - SF FRYINGPAN R AT UPPER STATION. NR NORRIE. CO. (LAT 39 14 30 LONG 106 35 33)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE. WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE. WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT . 1979 | | | | AUG . 1980 | | | |
| 02... | 1335 | -- | 6.5 | 05... | 1145 | -- | 10.0 |
| 15... | 1325 | -- | 5.0 | 19... | 1315 | -- | 11.0 |
| 22... | 1035 | -- | 1.0 | SEP | | | |
| JUN . 1980 | | | | 03... | 1025 | -- | 5.5 |
| 16... | 1135 | -- | 4.0 | 17... | 1305 | -- | 8.0 |
| 26... | 1345 | -- | 8.0 | | | | |
| JUL | | | | | | | |
| 22... | 1240 | -- | 12.0 | | | | |

### 09077945 - CHAPMAN GULCH NEAR NAST. CO. (LAT 39 15 51 LONG 106 37 54)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE. WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE. WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT . 1979 | | | | JUN . 1980 | | | |
| 02... | 1220 | -- | 8.0 | 16... | 1325 | -- | 6.0 |
| 15... | 1205 | -- | 2.5 | 26... | 1500 | -- | 7.5 |
| 22... | 1145 | -- | 1.5 | JUL | | | |
| NOV | | | | 16... | 1045 | -- | 7.5 |
| 15... | 0940 | -- | 1.0 | 22... | 1310 | -- | 12.0 |
| MAY . 1980 | | | | AUG | | | |
| 07... | 1410 | -- | 4.5 | 05... | 1030 | -- | 10.0 |
| 22... | 1215 | -- | 2.0 | 19... | 1150 | -- | 11.0 |
| 26... | 0945 | -- | 2.0 | SEP | | | |
| JUN | | | | 04... | 1115 | -- | 9.0 |
| 03... | 1205 | -- | 3.0 | 17... | 1155 | -- | 9.0 |
| 10... | 1030 | -- | 3.0 | | | | |

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| 09078000 - FRYINGPAN RIVER AT NORRIE, CO. (LAT 39 19 51 LONG 106 39 27) | | | | | | | |
| OCT , 1979 | | | | APR , 1980 | | | |
| 03... | 1215 | 33 | 10.0 | 17... | 1300 | <50 | 2.0 |
| NOV | | | | JUN | | | |
| 06... | 1240 | 36 | 2.5 | 02... | 1630 | <50 | 12.0 |
| DEC | | | | 17... | 1230 | -- | 10.5 |
| 18... | 1530 | -- | .5 | JUL | | | |
| FEB , 1980 | | | | 14... | 1300 | 22 | 14.0 |
| 05... | 1210 | 75 | .5 | AUG | | | |
| MAR | | | | 19... | 1400 | 38 | 14.5 |
| 11... | 1100 | -- | .5 | | | | |
| 09078100 - NF FRYINGPAN R AB CUNNINGHAM C. NR NORRIE, CO. (LAT 39 21 32 LONG 106 34 04) | | | | | | | |
| OCT , 1979 | | | | JUL , 1980 | | | |
| 03... | 1600 | 22 | 7.0 | 14... | 1530 | 16 | 13.5 |
| APR , 1980 | | | | AUG | | | |
| 16... | 1200 | 36 | .5 | 19... | 1515 | 21 | 11.0 |
| JUN | | | | | | | |
| 03... | 1530 | <50 | 5.0 | | | | |
| 17... | 1130 | 20 | 5.5 | | | | |
| 09078200 - CUNNINGHAM CREEK NEAR NORRIE, CO. (LAT 39 20 03 LONG 106 34 29) | | | | | | | |
| OCT , 1979 | | | | JUL , 1980 | | | |
| 03... | 1425 | 26 | 7.5 | 16... | 1020 | 21 | 8.5 |
| APR , 1980 | | | | AUG | | | |
| 16... | 1300 | <50 | .0 | 19... | 1615 | 29 | 11.0 |
| JUN | | | | | | | |
| 03... | 1145 | <50 | 4.5 | | | | |
| 17... | 1030 | 21 | 5.5 | | | | |
| 09078500 - NORTH FORK FRYINGPAN RIVER NEAR NORRIE, CO. (LAT 39 20 34 LONG 106 39 55) | | | | | | | |
| OCT , 1979 | | | | FEB , 1980 | | | |
| 03... | 1030 | -- | 7.0 | 12... | 1305 | -- | 1.0 |
| 16... | 1015 | -- | 5.0 | JUN | | | |
| 24... | 1115 | -- | 2.0 | 24... | 1040 | -- | 8.5 |
| NOV | | | | JUL | | | |
| 07... | 1015 | -- | 3.0 | 23... | 1100 | -- | 16.0 |
| 30... | 1200 | -- | .5 | AUG | | | |
| DEC | | | | 05... | 1435 | -- | 18.0 |
| 06... | 1120 | -- | .5 | 20... | 1045 | -- | 15.0 |
| 13... | 1215 | -- | .5 | SEP | | | |
| 20... | 1235 | -- | .5 | 04... | 1225 | -- | 11.0 |
| JAN , 1980 | | | | 16... | 1500 | -- | 11.5 |
| 22... | 1525 | -- | 1.0 | | | | |

09078600 - FRYINGPAN RIVER NEAR THOMASVILLE, CO. (LAT 39 20 41 LONG 106 40 23)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 03... | 0935 | -- | 7.0 |
| 16... | 0920 | -- | 5.0 |
| 24... | 1020 | -- | 1.5 |
| NOV | | | |
| 07... | 1125 | -- | 3.0 |
| 30... | 1040 | -- | .5 |
| DEC | | | |
| 06... | 1030 | -- | .5 |
| 13... | 1030 | -- | .5 |
| 20... | 1020 | -- | .5 |
| JAN , 1980 | | | |
| 22... | 1035 | -- | 3.0 |
| FEB | | | |
| 04... | 1045 | -- | 2.0 |
| 12... | 1030 | -- | 1.0 |
| MAR | | | |
| 27... | 1015 | -- | 3.0 |
| APR , 1980 | | | |
| 15... | 1015 | -- | 3.0 |
| 30... | 1315 | -- | 4.0 |
| MAY | | | |
| 13... | 1335 | -- | 3.5 |
| 28... | 1255 | -- | 6.0 |
| JUN | | | |
| 03... | 1410 | -- | 7.0 |
| 18... | 1420 | -- | 10.0 |
| JUL | | | |
| 23... | 1005 | -- | 13.0 |
| AUG | | | |
| 07... | 1205 | -- | 14.0 |
| 20... | 0950 | -- | 13.0 |
| SEP | | | |
| 04... | 1325 | -- | 14.0 |
| 16... | 1410 | -- | 11.5 |

09080100 - FRYINGPAN RIVER AT MEREDITH, CO. (LAT 39 21 45 LONG 106 43 55)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 09... | 1435 | 145 | 10.0 |
| NOV | | | |
| 06... | 1050 | 175 | 1.5 |
| DEC | | | |
| 18... | 1305 | 180 | 2.5 |
| FEB , 1980 | | | |
| 05... | 1400 | 160 | 1.5 |
| MAR | | | |
| 11... | 1320 | -- | 1.0 |
| APR , 1980 | | | |
| 17... | 1130 | 150 | 5.0 |
| JUN | | | |
| 02... | 1530 | 70 | 10.0 |
| 04... | 1120 | 70 | 7.0 |
| JUL | | | |
| 14... | 1800 | 58 | 13.0 |
| AUG | | | |
| 19... | 1830 | 90 | 14.0 |

### 09080400 - FRYINGPAN RIVER NEAR RUEDI, CO. (LAT 39 21 56 LONG 106 49 30)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) | DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | JUN , 1980 | | | |
| 09... | 1320 | 160 | 9.0 | 02... | 1200 | 300 | 6.0 |
| NOV | | | | JUL | | | |
| 06... | 0910 | 235 | 9.5 | 16... | 1240 | 210 | 17.5 |
| FEB , 1980 | | | | AUG | | | |
| 05... | 1655 | 320 | 3.5 | 21... | 1125 | 240 | 10.0 |
| APR | | | | | | | |
| 17... | 1025 | 220 | 6.0 | | | | |

### 09081600 - CRYSTAL RIVER AB AVALANCHE C. NEAR REDSTONE, CO. (LAT 39 13 56 LONG 107 13 36)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) | DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 05... | 1145 | 360 | 10.0 | 17... | 1030 | 510 | 4.5 |
| NOV | | | | JUN | | | |
| 08... | 0930 | -- | 4.5 | 06... | 1000 | 125 | 5.5 |
| DEC | | | | 16... | 1600 | 155 | 10.5 |
| 19... | 1000 | 600 | 1.0 | JUL | | | |
| FEB , 1980 | | | | 18... | 1345 | 230 | 14.0 |
| 04... | 1600 | 710 | 6.5 | AUG | | | |
| MAR | | | | 18... | 1415 | 410 | 14.5 |
| 11... | 1630 | 725 | 6.0 | | | | |

### 09085200 - CANYON CREEK ABOVE NEW CASTLE, CO. (LAT 39 36 19 LONG 107 24 21)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) | DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 01... | 1435 | 200 | 13.0 | 30... | 1320 | 230 | 6.5 |
| NOV | | | | JUN | | | |
| 05... | 1145 | 270 | 7.0 | 04... | 1255 | 200 | 8.5 |
| DEC | | | | 18... | 1325 | -- | 10.0 |
| 17... | 1130 | 270 | 3.0 | JUL | | | |
| FEB , 1980 | | | | 16... | 1335 | 280 | 15.0 |
| 08... | 1145 | 290 | 3.5 | SEP | | | |
| MAR | | | | 04... | 1350 | 330 | 16.0 |
| 19... | 1640 | 295 | 9.0 | | | | |

### 09085300 - EAST CANYON CREEK NEAR NEW CASTLE, CO. (LAT 39 36 33 LONG 107 26 03)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) | DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 01... | 1255 | 220 | 9.5 | 30... | 1030 | 220 | 4.5 |
| 02... | 1015 | 220 | 9.0 | JUN | | | |
| NOV | | | | 04... | 0935 | 185 | 4.5 |
| 05... | 1300 | 360 | 5.5 | 18... | 1030 | 180 | 6.5 |
| DEC | | | | JUL | | | |
| 17... | 1310 | 400 | 1.5 | 16... | 1025 | 250 | 10.0 |
| FEB , 1980 | | | | SEP | | | |
| 08... | 0855 | -- | .5 | 04... | 0955 | 260 | 9.0 |
| MAR | | | | | | | |

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE. WATER (DEG C) | DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE. WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| 09085400 - POSSUM CREEK NEAR NEW CASTLE. CO. (LAT 39 35 52 LONG 107 25 24) | | | | | | | |
| OCT . 1979 | | | | APR . 1980 | | | |
| 02... | 0845 | 350 | 7.5 | 30... | 1130 | 320 | 6.0 |
| NOV | | | | JUN | | | |
| 05... | 1430 | 330 | 4.0 | 04... | 1100 | -- | 6.5 |
| DEC | | | | 18... | 1145 | 320 | 8.0 |
| 17... | 1515 | 360 | 2.0 | JUL | | | |
| FEB . 1980 | | | | 16... | 1140 | 360 | 9.5 |
| 08... | 1010 | -- | 1.0 | SEP | | | |
| MAR | | | | 04... | 1115 | 350 | 8.0 |
| 19... | 1505 | 345 | 3.5 | | | | |
| 09089500 - WEST DIVIDE CREEK NEAR RAVEN. CO. (LAT 39 19 52 LONG 107 34 46) | | | | | | | |
| OCT . 1979 | | | | JUN . 1980 | | | |
| 03... | 0930 | 510 | 13.0 | 04... | 1545 | 170 | 12.0 |
| NOV | | | | 19... | 0940 | 160 | 8.5 |
| 07... | 0935 | 640 | .5 | JUL | | | |
| JAN . 1980 | | | | 17... | 0935 | 240 | 12.5 |
| 30... | 1005 | 580 | .0 | SEP | | | |
| MAR | | | | 05... | 0925 | 440 | 9.5 |
| 20... | 1015 | 435 | .0 | | | | |
| 09092500 - BEAVER CREEK NEAR RIFLE. CO. (LAT 39 28 19 LONG 107 49 55) | | | | | | | |
| OCT . 1979 | | | | MAY . 1980 | | | |
| 03... | 1200 | 420 | 9.5 | 01... | 1100 | 280 | 6.0 |
| NOV | | | | JUN | | | |
| 07... | 1100 | 440 | 1.5 | 05... | 1100 | 160 | 5.5 |
| DEC | | | | 19... | 1200 | 175 | 8.0 |
| 21... | 1000 | 500 | .0 | JUL | | | |
| JAN . 1980 | | | | 17... | 1200 | 240 | 12.0 |
| 30... | 1300 | 490 | .0 | SEP | | | |
| MAR | | | | 05... | 1200 | 305 | 11.0 |
| 20... | 1400 | 420 | 2.0 | | | | |
| 09095526 - GOVERNMENT HIGHLINE CA AT 16 ROAD. NR LOMA. CO. (LAT 39 15 25 LONG 108 45 22) | | | | | | | |
| OCT . 1979 | | | | MAY . 1980 | | | |
| 04... | 0840 | 1050 | 14.5 | 14... | 0820 | 460 | 11.0 |
| 27... | 0945 | 1050 | 13.0 | 30... | 0900 | 380 | 14.0 |
| 27... | 1330 | 1050 | 13.0 | JUL | | | |
| 28... | 0635 | 1080 | 8.0 | 09... | 0955 | 500 | 20.0 |
| APR . 1980 | | | | AUG | | | |
| 18... | 0715 | 1050 | 11.0 | 20... | 1330 | 920 | 19.0 |

09095528 - LATERAL NO. 48 NEAR MACK, CO. (LAT 39 16 17 LONG 108 49 59)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 04... | 1300 | 1050 | 15.0 |
| 28... | 1250 | 1080 | 10.0 |
| MAY , 1980 | | | |
| 09... | 1310 | 370 | 14.0 |
| JUN | | | |
| 02... | 0850 | 360 | 13.0 |
| JUL , 1980 | | | |
| 16... | 1210 | 560 | 22.0 |
| AUG | | | |
| 07... | 0920 | 940 | 22.5 |
| SEP | | | |
| 02... | 1040 | 1050 | 19.5 |

09096500 - PLATEAU CREEK NEAR COLLBRAN, CO. (LAT 39 15 02 LONG 107 50 24)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 10... | 1310 | 135 | 9.0 |
| NOV | | | |
| 21... | 1110 | 200 | .0 |
| DEC | | | |
| 13... | 1030 | 220 | .0 |
| JAN , 1980 | | | |
| 31... | 1015 | 475 | .0 |
| MAR | | | |
| 11... | 1045 | 435 | .0 |
| APR | | | |
| 25... | 1320 | 410 | 11.0 |
| MAY , 1980 | | | |
| 27... | 1045 | 100 | 4.5 |
| JUN | | | |
| 12... | 1450 | 80 | 10.5 |
| 19... | 1305 | 90 | 12.5 |
| JUL | | | |
| 10... | 1315 | 100 | 16.5 |
| AUG | | | |
| 19... | 1520 | 85 | 15.5 |

09097500 - BUZZARD CREEK NEAR COLLBRAN, CO. (LAT 39 19 30 LONG 107 50 29)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 10... | 1430 | 800 | 15.0 |
| NOV | | | |
| 21... | 1000 | 675 | .0 |
| DEC | | | |
| 13... | 1155 | 650 | .5 |
| JAN , 1980 | | | |
| 31... | 1120 | 870 | .0 |
| MAR | | | |
| 11... | 1600 | 575 | 1.0 |
| APR | | | |
| 25... | 1100 | 280 | 4.5 |
| MAY , 1980 | | | |
| 27... | 1345 | 210 | 9.0 |
| JUN | | | |
| 12... | 1615 | 110 | 14.0 |
| 19... | 1550 | 160 | 18.0 |
| JUL | | | |
| 10... | 1545 | 480 | 22.5 |
| AUG | | | |
| 19... | 1700 | 550 | 20.0 |

09106104 - KIEFER EXTENSION GRAND VALLEY CA NR FRUITA, CO. (LAT 39 13 31 LONG 108 46 28)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 04... | 0945 | 1020 | 14.0 |
| APR , 1980 | | | |
| 17... | 0900 | 950 | 11.0 |
| MAY | | | |
| 14... | 1030 | 480 | 11.5 |
| 30... | 1100 | 410 | 14.5 |
| JUL , 1980 | | | |
| 09... | 1045 | 550 | 20.5 |
| AUG | | | |
| 20... | 1615 | 930 | 21.0 |

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| 09106108 - KIEFER EXTENSION GRAND VALLEY CANAL NR LOMA, CO. (LAT 39 13 40 LONG 108 49 06) | | | | | | | |
| OCT , 1979 | | | | JUL , 1980 | | | |
| 04... | 1210 | 1020 | 14.0 | 17... | 0840 | 640 | 20.5 |
| APR , 1980 | | | | AUG | | | |
| 23... | 0905 | 730 | 14.0 | 07... | 1020 | 950 | 24.0 |
| MAY | | | | SEP | | | |
| 09... | 1215 | 390 | 14.5 | 04... | 1200 | 1000 | 20.0 |
| JUN | | | | | | | |
| 02... | 0930 | 380 | 14.0 | | | | |
| 09109000 - TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO. (LAT 38 49 06 LONG 106 36 31) | | | | | | | |
| OCT , 1979 | | | | APR , 1980 | | | |
| 02... | 1230 | 110 | 9.0 | 22... | 1430 | 120 | 3.0 |
| NOV | | | | JUN | | | |
| 13... | 1455 | 140 | 4.5 | 11... | 1535 | 120 | 6.5 |
| DEC | | | | JUL | | | |
| 17... | 1400 | 80 | 4.0 | 07... | 1455 | 110 | 7.5 |
| JAN , 1980 | | | | AUG | | | |
| 28... | 1345 | 90 | 3.0 | 18... | 1510 | -- | 8.0 |
| MAR | | | | | | | |
| 17... | 1400 | 130 | 3.5 | | | | |
| 09110000 - TAYLOR RIVER AT ALMONT, CO. (LAT 38 39 52 LONG 106 50 41) | | | | | | | |
| OCT , 1979 | | | | APR , 1980 | | | |
| 02... | 1425 | 120 | 11.0 | 22... | 0930 | 120 | 4.0 |
| NOV | | | | JUN | | | |
| 13... | 1700 | 165 | 2.0 | 04... | 1615 | 130 | 10.0 |
| DEC | | | | JUL | | | |
| 17... | 1545 | 130 | .0 | 08... | 1045 | 80 | 11.0 |
| JAN , 1980 | | | | AUG | | | |
| 28... | 1530 | 130 | .5 | 19... | 1350 | 110 | 13.0 |
| MAR | | | | | | | |
| 17... | 1520 | 140 | 1.0 | | | | |
| 09112200 - EAST RIVER BL CEMENT CREEK NR CRESTED BUTTE, CO. (LAT 38 47 24 LONG 106 52 21) | | | | | | | |
| NOV , 1979 | | | | JUN , 1980 | | | |
| 14... | 0935 | 390 | 2.0 | 05... | 1140 | 150 | 8.5 |
| DEC | | | | 12... | 1030 | 135 | 5.5 |
| 18... | 0920 | 200 | .0 | 17... | 1120 | 130 | 7.0 |
| JAN , 1980 | | | | JUL | | | |
| 29... | 0945 | -- | .0 | 09... | 1145 | 160 | 10.5 |
| MAR | | | | AUG | | | |
| 18... | 0900 | 290 | .0 | 19... | 0925 | 285 | 11.0 |
| APR | | | | | | | |
| 23... | 1505 | 250 | 2.0 | | | | |

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| 09112500 - EAST RIVER AT ALMONT CO. (LAT 38 39 52 LONG 106 50 50) | | | | | | | |
| OCT . 1979 | | | | APR . 1980 | | | |
| 01... | 1615 | 380 | 12.0 | 22... | 1025 | 260 | 6.0 |
| NOV | | | | JUN | | | |
| 14... | 1105 | 380 | 2.5 | 04... | 1240 | 180 | 7.5 |
| DEC | | | | 12... | 1220 | 190 | 8.0 |
| 18... | 1120 | 340 | .0 | JUL | | | |
| JAN . 1980 | | | | 08... | 1210 | 220 | 11.5 |
| 29... | 1125 | 310 | .0 | AUG | | | |
| MAR | | | | 19... | 1140 | 280 | 13.0 |
| 18... | 1110 | 340 | .5 | | | | |
| 09113500 - OHIO CREEK NEAR BALDWIN. CO. (LAT 38 42 08 LONG 106 59 52) | | | | | | | |
| NOV . 1979 | | | | JUN . 1980 | | | |
| 14... | 1250 | 200 | 2.5 | 17... | 1450 | 70 | 14.0 |
| DEC | | | | JUL | | | |
| 18... | 1330 | 140 | .0 | 08... | 1415 | 110 | 16.0 |
| MAR . 1980 | | | | AUG | | | |
| 18... | 1355 | 150 | .0 | 05... | 1510 | 170 | 19.5 |
| APR | | | | 19... | 1525 | 140 | 18.5 |
| 21... | 1800 | 140 | 5.0 | | | | |
| JUN | | | | | | | |
| 04... | 0930 | 70 | 4.5 | | | | |
| 13... | 0925 | 70 | 5.5 | | | | |
| 09114500 - GUNNISON RIVER NEAR GUNNISON. CO. (LAT 38 32 31 LONG 106 56 57) | | | | | | | |
| OCT . 1979 | | | | APR . 1980 | | | |
| 03... | 1005 | 270 | 11.0 | 23... | 1000 | 180 | 5.0 |
| NOV | | | | JUN | | | |
| 14... | 1420 | 390 | 3.0 | 05... | 0955 | 150 | 6.0 |
| DEC | | | | 12... | 1520 | 165 | 11.0 |
| 18... | 1520 | -- | 2.0 | 17... | 1740 | 180 | 13.0 |
| JAN . 1980 | | | | JUL | | | |
| 29... | 1455 | 200 | 2.0 | 08... | 1640 | 190 | 16.0 |
| MAR | | | | AUG | | | |
| 18... | 1440 | 200 | 1.5 | 20... | 1110 | 160 | 10.0 |

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| 09119000 - TOMICHI CREEK AT GUNNISON, CO. (LAT 38 31 18 LONG 106 56 25) | | | | | | | |
| OCT , 1979 | | | | APR , 1980 | | | |
| 01... | 1800 | 430 | 17.0 | 23... | 1400 | 220 | 7.0 |
| NOV | | | | JUN | | | |
| 14... | 1830 | 330 | 1.5 | 04... | 1815 | 240 | 17.0 |
| DEC | | | | 12... | 1705 | 215 | 19.0 |
| 18... | 1425 | 260 | .5 | JUL | | | |
| JAN , 1980 | | | | 08... | 1810 | 340 | 22.0 |
| 29... | 1555 | 240 | .0 | AUG | | | |
| MAR | | | | 20... | 0900 | 285 | 12.0 |
| 18... | 1605 | 270 | 3.0 | | | | |
| 09124500 - LAKE FORK AT GATEVIEW, CO. (LAT 38 17 56 LONG 107 13 46) | | | | | | | |
| OCT , 1979 | | | | APR , 1980 | | | |
| 02... | 1645 | 190 | 15.0 | 24... | 1010 | 160 | 3.0 |
| NOV | | | | JUN | | | |
| 14... | 1630 | 230 | 1.0 | 03... | 1440 | 110 | 11.0 |
| DEC | | | | 13... | 1205 | 85 | 8.5 |
| 19... | 0925 | 180 | .0 | JUL | | | |
| JAN , 1980 | | | | 09... | 1430 | 90 | 16.0 |
| 30... | 1150 | 190 | .5 | AUG | | | |
| MAR | | | | 20... | 1710 | 120 | 19.0 |
| 19... | 0940 | 170 | 1.0 | | | | |
| 09126000 - CIMARRON RIVER NEAR CIMARRON, CO. (LAT 38 15 45 LONG 107 32 39) | | | | | | | |
| OCT , 1979 | | | | JUN , 1980 | | | |
| 03... | 1315 | 130 | 14.5 | 03... | 0925 | 100 | 6.0 |
| NOV | | | | 16... | 1350 | 90 | 8.0 |
| 15... | 1120 | 190 | 1.0 | JUL | | | |
| DEC | | | | 09... | 1730 | 80 | 10.5 |
| 19... | 1255 | 140 | .0 | AUG | | | |
| MAR , 1980 | | | | 21... | 1020 | 75 | 14.0 |
| 19... | 1350 | 130 | .0 | | | | |
| APR | | | | | | | |
| 24... | 1400 | 140 | .5 | | | | |
| 09128000 - GUNNISON RIVER BELOW GUNNISON TUNNEL, CO. (LAT 38 31 45 LONG 107 38 54) | | | | | | | |
| OCT , 1979 | | | | APR , 1980 | | | |
| 03... | 1630 | 240 | 11.0 | 22... | 1610 | 210 | 5.0 |
| NOV | | | | MAY | | | |
| 15... | 1400 | 225 | 8.0 | 28... | 1400 | 200 | 7.0 |
| DEC | | | | JUN | | | |
| 19... | 1535 | 190 | 4.0 | 18... | 1210 | 70 | 11.0 |
| JAN , 1980 | | | | JUL | | | |
| 31... | 1535 | 200 | 2.0 | 10... | 1650 | 210 | 11.0 |
| MAR | | | | AUG | | | |
| 20... | 1525 | 200 | 4.0 | 21... | 1400 | 160 | 13.0 |

### 09128500 - SMITH FORK NEAR CRAWFORD, CO. (LAT 38 43 40 LONG 107 30 22)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 04... | 1135 | 190 | 11.0 | 06... | 1535 | 100 | 9.5 |
| NOV | | | | 29... | 1315 | 80 | 8.5 |
| 14... | 0945 | 180 | 1.0 | JUN | | | |
| JAN , 1980 | | | | 11... | 1345 | 75 | 11.0 |
| 09... | 0935 | 245 | .0 | JUL | | | |
| FEB | | | | 10... | 0835 | -- | 10.5 |
| 21... | 0850 | 260 | .0 | AUG | | | |
| MAR | | | | 20... | 0920 | 160 | 11.0 |
| 26... | 0930 | 210 | .5 | | | | |
| APR | | | | | | | |
| 23... | 0900 | 105 | 4.5 | | | | |

### 09129600 - SMITH FORK NEAR LAZEAR, CO. (LAT 38 42 27 LONG 107 42 35)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 04... | 1330 | 2900 | 16.0 | 23... | 1020 | -- | 7.5 |
| NOV | | | | MAY | | | |
| 14... | 1120 | 3000 | 5.0 | 07... | 0905 | 305 | 7.0 |
| JAN , 1980 | | | | 29... | 1435 | 470 | 12.5 |
| 09... | 1115 | 4500 | 1.5 | JUN | | | |
| FEB | | | | 11... | 1510 | 630 | 16.5 |
| 21... | 1030 | 2000 | 4.5 | JUL | | | |
| MAR | | | | 10... | 1025 | 1950 | 18.5 |
| 26... | 1050 | 3300 | 5.5 | AUG | | | |
| APR | | | | 20... | 1050 | 2500 | 15.5 |
| 22... | 1615 | 345 | 11.5 | | | | |

### 0913[illegible]30 - COW CREEK NEAR PAONIA, CO. (LAT 39 06 15 LONG 107 35 02)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | JUN , 1980 | | | |
| 05... | 1120 | 130 | 5.0 | 10... | 1040 | 70 | 7.5 |
| APR , 1980 | | | | JUL | | | |
| 23... | 1320 | -- | .5 | 08... | 1035 | 60 | 10.0 |
| MAY | | | | AUG | | | |
| 28... | 1115 | 60 | 2.0 | 19... | 1015 | 95 | 9.5 |

### 09135900 - LEROUX CREEK AT HOTCHKISS, CO. (LAT 38 47 53 LONG 107 43 53)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 02... | 1330 | 1450 | 14.0 |
| NOV | | | |
| 14... | 1530 | 1200 | 9.0 |
| JAN , 1980 | | | |
| 08... | 1600 | 1900 | 6.5 |
| FEB | | | |
| 21... | 1245 | 2050 | 7.0 |
| MAR | | | |
| 25... | 1540 | 1200 | -- |
| APR | | | |
| 22... | 1455 | 300 | 10.5 |
| MAY , 1980 | | | |
| 07... | 1055 | 120 | 5.0 |
| 29... | 1620 | 160 | 10.5 |
| JUN | | | |
| 11... | 1635 | 170 | 12.0 |
| JUL | | | |
| 10... | 1140 | 1550 | 18.0 |
| AUG | | | |
| 20... | 1350 | 1550 | 17.0 |

### 09136200 - GUNNISON RIVER NEAR LAZEAR, CO. (LAT 38 46 59 LONG 107 50 14)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 02... | 1625 | 1600 | 18.0 |
| NOV | | | |
| 15... | 1335 | -- | 6.5 |
| JAN , 1980 | | | |
| 09... | 1425 | 1750 | 3.5 |
| MAR | | | |
| 27... | 1625 | 230 | 5.0 |
| MAY | | | |
| 07... | 1340 | 180 | 8.5 |
| MAY , 1980 | | | |
| 30... | 0930 | 220 | 7.5 |
| JUN | | | |
| 12... | 0945 | 160 | 9.5 |
| JUL | | | |
| 10... | 1400 | 590 | 21.0 |
| AUG | | | |
| 20... | 1550 | 1700 | 23.0 |

### 09137050 - CURRANT CREEK NEAR READ, CO. (LAT 38 47 05 LONG 107 56 18)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 03... | 1325 | 4000 | 14.0 |
| NOV | | | |
| 16... | 1155 | 3900 | 3.5 |
| JAN , 1980 | | | |
| 09... | 1555 | 6800 | 4.0 |
| FEB | | | |
| 22... | 0845 | 3300 | 4.5 |
| MAR | | | |
| 25... | 1635 | 5100 | 2.0 |
| APR , 1980 | | | |
| 22... | 1340 | 730 | 9.0 |
| MAY | | | |
| 07... | 1610 | 540 | 8.0 |
| 14... | 1315 | 1170 | 9.0 |
| 30... | 1130 | 650 | 8.5 |
| JUN | | | |
| 12... | 1100 | 1120 | 13.0 |
| JUL | | | |
| 09... | 1540 | 3400 | 26.5 |

### 09143000 - SURFACE CREEK NEAR CEDAREDGE, CO. (LAT 38 59 05 LONG 107 51 13)

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 03... | 0930 | 95 | 6.0 |
| NOV | | | |
| 15... | 0925 | 90 | .5 |
| MAY , 1980 | | | |
| 27... | 1135 | 75 | 4.5 |
| JUN , 1980 | | | |
| 12... | 1255 | 65 | 7.0 |
| JUL | | | |
| 11... | 0900 | 60 | 11.5 |
| AUG | | | |
| 21... | 1500 | 150 | 15.0 |

09143500 - SURFACE CREEK AT CEDAREDGE, CO. (LAT 38 54 06 LONG 107 55 14)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 03... | 1055 | 115 | 10.0 | 22... | 1200 | 125 | 6.0 |
| NOV | | | | MAY | | | |
| 20... | 1525 | 160 | 2.5 | 08... | 1030 | -- | 4.5 |
| 26... | 1525 | -- | .0 | 27... | 1250 | 105 | 8.5 |
| JAN , 1980 | | | | JUN | | | |
| 10... | 0925 | 310 | .0 | 12... | 1435 | 75 | 10.0 |
| FEB | | | | JUL | | | |
| 21... | 1440 | 270 | 2.0 | 10... | 1530 | 80 | 17.0 |
| MAR | | | | AUG | | | |
| 26... | 1355 | 215 | 6.0 | 21... | 1650 | 90 | 16.0 |

09144200 - TONGUE CREEK AT CORY, CO. (LAT 38 47 16 LONG 107 59 41)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 03... | 1230 | 1850 | 14.0 | 08... | 0850 | 390 | 7.0 |
| NOV | | | | 27... | 1545 | 495 | 13.0 |
| 15... | 1115 | 1600 | 3.5 | JUN | | | |
| JAN , 1980 | | | | 12... | 1625 | 380 | 15.0 |
| 10... | 1050 | 2200 | 4.5 | JUL | | | |
| FEB | | | | 11... | 1030 | 2150 | 19.0 |
| 21... | 1535 | 2150 | 6.0 | AUG | | | |
| MAR | | | | 22... | 0755 | 1700 | 14.0 |
| 26... | 1525 | 1450 | 10.0 | | | | |
| APR | | | | | | | |
| 22... | 1045 | 385 | 7.5 | | | | |

09144250 - GUNNISON RIVER AT DELTA, CO. (LAT 38 45 01 LONG 108 04 06)

| DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) | DATE | TIME | SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) | TEMPER- ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | MAY , 1980 | | | |
| 03... | 1600 | 850 | 16.0 | 30... | 1405 | 410 | 8.5 |
| JAN , 1980 | | | | JUN | | | |
| 10... | 1455 | 610 | 4.5 | 13... | 1200 | 350 | 11.5 |
| FEB | | | | JUL | | | |
| 22... | 1105 | 840 | 3.5 | 11... | 1250 | 750 | 19.0 |
| MAR | | | | AUG | | | |
| 28... | 1210 | 480 | 4.5 | 22... | 1000 | 1100 | 14.0 |
| MAY | | | | | | | |
| 08... | 1600 | 400 | 10.5 | | | | |

| DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) | DATE | TIME | SPECIFIC CONDUCTANCE (MICROMHOS) | TEMPERATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| **09146200 - UNCOMPAHGRE RIVER NEAR RIDGWAY, CO. (LAT 38 11 02 LONG 107 44 43)** | | | | | | | |
| OCT , 1979 | | | | APR , 1980 | | | |
| 04... | 1110 | 875 | 10.0 | 22... | 0850 | 410 | 5.0 |
| NOV | | | | MAY | | | |
| 16... | 1150 | 850 | 5.0 | 29... | 1055 | 320 | 7.0 |
| DEC | | | | JUN | | | |
| 20... | 1100 | 790 | 3.0 | 12... | 2100 | 235 | 9.5 |
| JAN , 1980 | | | | JUL | | | |
| 31... | 1040 | 800 | 2.0 | 10... | 1055 | 520 | 14.0 |
| MAR | | | | AUG | | | |
| 20... | 1030 | 860 | 6.0 | 22... | 1020 | 800 | 11.0 |
| **09147000 - DALLAS CREEK NEAR RIDGWAY, CO. (LAT 38 10 40 LONG 107 45 28)** | | | | | | | |
| OCT , 1979 | | | | MAY , 1980 | | | |
| 04... | 0955 | 1100 | 9.0 | 29... | 0935 | 530 | 7.5 |
| NOV | | | | JUN | | | |
| 16... | 1020 | 1000 | 3.0 | 12... | 1800 | 430 | 17.0 |
| DEC | | | | JUL | | | |
| 20... | 0900 | 750 | .0 | 10... | 0950 | 700 | 13.5 |
| JAN , 1980 | | | | AUG | | | |
| 31... | 0850 | 800 | .0 | 08... | 0915 | 1200 | 14.5 |
| MAR | | | | 22... | 0905 | 590 | 10.0 |
| 20... | 0850 | 810 | 1.5 | | | | |
| APR | | | | | | | |
| 22... | 0945 | 340 | 5.5 | | | | |
| **09147500 - UNCOMPAHGRE RIVER AT COLONA, CO. (LAT 38 19 53 LONG 107 46 44)** | | | | | | | |
| OCT , 1979 | | | | MAY , 1980 | | | |
| 04... | 1310 | 1200 | 12.0 | 29... | 1325 | 330 | 11.0 |
| NOV | | | | JUN | | | |
| 15... | 1550 | 925 | 6.0 | 12... | 1345 | 290 | 14.0 |
| DEC | | | | JUL | | | |
| 20... | 1310 | 800 | 1.0 | 10... | 1325 | 530 | 15.5 |
| JAN , 1980 | | | | AUG | | | |
| 31... | 1240 | 860 | .5 | 08... | 1055 | 720 | 16.0 |
| MAR | | | | 21... | 1715 | 790 | 19.5 |
| 20... | 1200 | 860 | 7.5 | | | | |
| APR | | | | | | | |
| 22... | 1235 | 360 | 9.0 | | | | |

### 09150500 - ROUBIDEAU CREEK AT MOUTH, NEAR DELTA, CO. (LAT 38 44 06 LONG 108 09 40)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 05... | 1210 | 1650 | 11.0 |
| NOV | | | |
| 30... | 1125 | 2000 | 2.0 |
| JAN , 1980 | | | |
| 09... | 1025 | 1900 | 2.5 |
| 14... | 1245 | 1800 | 6.0 |
| FEB | | | |
| 01... | 0900 | 1750 | .0 |
| MAR | | | |
| 21... | 0945 | 1800 | 6.5 |
| APR , 1980 | | | |
| 21... | 1210 | 675 | 13.5 |
| MAY | | | |
| 08... | 1345 | 290 | 10.5 |
| 29... | 1635 | 160 | 12.0 |
| JUN | | | |
| 13... | 1620 | 390 | 14.5 |
| JUL | | | |
| 11... | 0855 | 1500 | 18.5 |
| AUG | | | |
| 25... | 1055 | 1100 | 16.0 |

### 09151500 - ESCALANTE CREEK NEAR DELTA, CO. (LAT 38 45 24 LONG 108 15 34)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 05... | 1350 | 1500 | 18.0 |
| NOV | | | |
| 30... | 1250 | 980 | 1.0 |
| JAN , 1980 | | | |
| 09... | 1340 | 540 | 2.0 |
| FEB | | | |
| 01... | 1150 | 610 | 2.0 |
| MAR | | | |
| 21... | 1330 | 570 | 11.5 |
| APR | | | |
| 21... | 1120 | 230 | 8.0 |
| MAY , 1980 | | | |
| 08... | 1230 | 170 | 7.0 |
| 30... | 1135 | 140 | 7.0 |
| JUN | | | |
| 12... | 1020 | 160 | 11.0 |
| JUL | | | |
| 14... | 1045 | 520 | 22.0 |
| AUG | | | |
| 08... | 1300 | 1000 | 28.0 |
| 25... | 1405 | 850 | 23.0 |

### 09152000 - KANNAH CREEK NEAR WHITEWATER, CO. (LAT 38 57 42 LONG 108 13 47)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|
| OCT , 1979 | | | |
| 01... | 1500 | 90 | 12.0 |
| NOV | | | |
| 14... | 1020 | 125 | .0 |
| DEC | | | |
| 18... | 1[illegible]50 | 500 | .5 |
| JAN , 1980 | | | |
| 31... | 1105 | 100 | .0 |
| MAR | | | |
| 12... | 1020 | 190 | 2.0 |
| APR | | | |
| 21... | 0920 | 200 | 7.5 |
| MAY , 1980 | | | |
| 28... | 1000 | 75 | 6.0 |
| JUN | | | |
| 05... | 1330 | 60 | 9.0 |
| 12... | 2130 | 60 | 7.5 |
| 18... | 1415 | 65 | 13.5 |
| JUL | | | |
| 08... | 1115 | 115 | 13.0 |
| AUG | | | |
| 18... | 1320 | 100 | 14.5 |

### 09152600 - ORCHARD MESA DRAIN AT GRAND JUNCTION, CO. (LAT 39 02 49 LONG 108 34 17)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) | DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | APR , 1980 | | | |
| 23... | 1520 | 3700 | 14.5 | 22... | 1410 | 1600 | 19.0 |
| NOV | | | | MAY | | | |
| 15... | 1020 | 3700 | 5.5 | 28... | 1415 | 1100 | 19.5 |
| DEC | | | | JUL | | | |
| 17... | 1525 | 2600 | -- | 08... | 1330 | 690 | 22.5 |
| JAN , 1980 | | | | AUG | | | |
| 30... | 1540 | 3200 | 8.0 | 18... | 1610 | 1500 | 23.0 |
| MAR | | | | | | | |
| 10... | 1355 | 2850 | 17.0 | | | | |

### 09153290 - REED WASH NEAR MACK, CO. (LAT 39 12 41 LONG 108 46 11)

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) | DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | TEMPER-ATURE, WATER (DEG C) |
|---|---|---|---|---|---|---|---|
| OCT , 1979 | | | | JUN , 1980 | | | |
| 04... | 1110 | 1750 | 14.0 | 02... | 1020 | 930 | 13.0 |
| NOV | | | | JUL | | | |
| 06... | 1005 | 4700 | 8.0 | 15... | 1215 | 1400 | 21.0 |
| DEC | | | | AUG | | | |
| 10... | 0930 | 4800 | 3.5 | 07... | 1130 | 1650 | 22.0 |
| JAN , 1980 | | | | SEP | | | |
| 07... | 0935 | 4900 | 2.0 | 05... | 0900 | 1800 | 16.0 |
| APR | | | | | | | |
| 08... | 0920 | 5200 | 5.0 | | | | |
| 23... | 1030 | 1120 | 14.0 | | | | |

## DELTA COUNTY

384234N108085101 SC15-96-32BAD. State of Colorado. Drilled domestic water-table well in Dakota Group. Diameter, 6 in. (0.2 m). Depth, 230 ft (70.1 m). MP, 0.3 ft (0.091 m) above lsd. Altitude of land surface, 4,960 ft (1,512 m). Records available: 1976, 1978-80.

Aug. 19, 1980 -0.25 ft (flowing)

## GRAND COUNTY

400248N105560301 SB 1-76-18DBC. W. F. Linke. Drilled recreation water-table well in Middle Park Formation. Diameter, 6 in. (0.2 m). Depth, 603 ft (183.8 m). MP, 6.0 ft (1.83 m) above lsd. Altitude of land surface, 8,075 ft (2,461 m). Records available: 1973-80.

Highest water level, 3.4 ft (1.04 m) below lsd, Aug. 28, 1974; lowest water level, 76.25 ft (27.546 m) below lsd, Aug. 11, 1977.

Aug. 5, 1980 74.30 ft

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# FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

| Multiply inch-pound units | By | To obtain SI units |
|---|---|---|
| | *Length* | |
| inches (in) | $2.54x10^{1}$ | millimeters (mm) |
| | $2.54x10^{-2}$ | meters (m) |
| feet (ft) | $3.048x10^{-1}$ | meters (m) |
| miles (mi) | $1.609x10^{0}$ | kilometers (km) |
| | *Area* | |
| acres | $4.047x10^{3}$ | square meters ($m^2$) |
| | $4.047x10^{-1}$ | square hectometers ($hm^2$) |
| | $4.047x10^{-3}$ | square kilometers ($km^2$) |
| square miles ($mi^2$) | $2.590x10^{0}$ | square kilometers ($km^2$) |
| | *Volume* | |
| gallons (gal) | $3.785x10^{0}$ | liters (L) |
| | $3.785x10^{0}$ | cubic decimeters ($dm^3$) |
| | $3.785x10^{-3}$ | cubic meters ($m^3$) |
| million gallons | $3.785x10^{3}$ | cubic meters ($m^3$) |
| | $3.785x10^{-3}$ | cubic hectometers ($hm^3$) |
| cubic feet ($ft^3$) | $2.832x10^{1}$ | cubic decimeters ($dm^3$) |
| | $2.832x10^{-2}$ | cubic meters ($m^3$) |
| cfs-days | $2.447x10^{3}$ | cubic meters ($m^3$) |
| | $2.447x10^{-3}$ | cubic hectometers ($hm^3$) |
| acre-feet (acre-ft) | $1.233x10^{3}$ | cubic meters ($m^3$) |
| | $1.233x10^{-3}$ | cubic hectometers ($hm^3$) |
| | $1.233x10^{-6}$ | cubic kilometers ($km^3$) |
| | *Flow* | |
| cubic feet per second ($ft^3/s$) | $2.832x10^{1}$ | liters per second (L/s) |
| | $2.832x10^{1}$ | cubic decimeters per second ($dm^3/s$) |
| | $2.832x10^{-2}$ | cubic meters per second ($m^3/s$) |
| gallons per minute (gal/min) | $6.309x10^{-2}$ | liters per second (L/s) |
| | $6.309x10^{-2}$ | cubic decimeters per second ($dm^3/s$) |
| | $6.309x10^{-5}$ | cubic meters per second ($m^3/s$) |
| million gallons per day | $4.381x10^{1}$ | cubic decimeters per second ($dm^3/s$) |
| | $4.381x10^{-2}$ | cubic meters per second ($m^3/s$) |
| | *Mass* | |
| tons (short) | $9.072x10^{-1}$ | megagrams (Mg) or metric tons |